The politics of flood insecurity

Framing contested river management projects

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Acknowledgments

'You can drown but you still survive'

New Musik – This World of Water

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... Since you asked: yes, I have indeed shaken hands with HRH Prince William Alexander (twice) but we didn´t make conversation. I did get to discuss water issues with HRH Queen Elizabeth and HRH Prince Philip, though.

List of Figures, Tables and Boxes

List of Abbreviations and Acronyms

ABB -   *Asea Brown Boveri* – major European construction company
ABI -   Association of British Insurers
BBC -   British Broadcasting Company
BOT -   Build Operate Transfer, a mode of partial project outsourcing
BCAS -   Bangladesh Centre for Advanced Studies, an NGO
BCM, Bn m^3- Billion cubic meters
BELA -   Bangladesh Environmental Lawyers Association
BOM –   *Vereniging Bewoners Overleg Maasvallei,* citizen platform engaging with the
              Maaswerken project
BPSC -   Bangladesh People´s Solidarity Centre, Amsterdam
BWDB -   Bangladesh Water Development Board
CBA –   Cost Benefit Analysis, also known as Benefit Cost Analysis (BCA)
CBO -   Community Based Organisation
CDA -   Christen Democratisch Appel, centrist Christian party, Netherlands.
Ch. –   Chapter
CIDA -   Canadian International Development Agency
CIWEM -   Chartered Institution of Water and Environmental Management, London
CPO –   Compulsory Purchase Order, issued to enable essential public works
CPP –   Compartmentalisation Pilot Plan, Bangladesh, also known as FAP-20
DEFRA -   Department for Environment, Food and Rural Affairs, UK
DCM –   Delfstoffen Combinatie Maasvellei, quarrying company
DETR -   Department for the Environment, Transport and the Regions, UK.
DGIS -   Directoraat Generaal Internationale Samenwerking, Dutch Overseas
              Development Assistance department.
DTI -   Department of Trade and Industry, UK.
DGR -   Deltaplan Grote Rivieren, 1995 Emergency plan major rivers, Netherlands.
DG -   Director General, highest ranking public servant in a departmental directorate.
DG Water -   Directorate General Water, Dutch water policy department
DSI -   Devlet Su Isler, Public Water Works, Turkey
EA -   Environment Agency, UK
ECA -   Export Credit Agency
EIA -   Environmental Impact Analysis
(E)IRR –   Economic Internal Rate of Return
EFWD -   European Water Framework Directive, 2000
EU -   European Union
FAP –   Flood Action Plan
FCD/I -   Flood Control, Drainage and Irrigation
FCO -   Foreign and Commonwealth Office
Fig. -   Figure
FPCO –   Flood Plan Coordination Organisation, agency formed to oversee the Flood
              Action Plan, Bangladesh
FHRC -   Flood Hazard Research Centre, Middlesex University
FRAG –   Flood Relief Action Groups, now called Thames Flood Teams
G7-   Group of Seven, (meeting of) seven principal industrialized countries (United
              States, Japan, Germany, France, United Kingdom, Italy and Canada)
GAP -   Gunaydoğu Anadolu Projesi, the Greater Anatolia Project in Southeast Turkey.
GAP RDA -   Regional Development Administration to govern the Greater Anatolia Project in
              Southeast Turkey

GBP –   British pound sterling
GMF -   Gelderse Milieu Federatie, Gelderland Environment Federation
GoB -   Government of Bangladesh
GOLD -   General Organization for. Land Development, Syria
GWh -   Gigawatthour
GWP -   Global Water Partnership
Ha -   hectare, 100 x 100 m =10,000 m2
HEPP –   Hydro-electric Power Plant
HID -   *Hoofdingenieur-Directeur,* Regional)technical) Director of Public Works department
HKV Lijn in Water – A consultancy, started as an offshoot from WL Delft, based in Lelystad,
               Netherlands
HWP -   Hoog Water Platform, citizen platform against flood storage in Ooijpolder.
IBRD -   International Bank for Reconstruction and Development (World Bank)
IDB -   Internal Drainage Board
(I)NGO –   (International) Nongovernmental Organisation
IOV -   *Inspectie Ontwikkkelingssamenwerking te Velde later rebaptised Inspectie*
               Ontwikkelingssamenwerking en Beleidsevaluatie (IOB/ Oversees Development
               Assistance agency's inspectorate, The Hague.
IPCC -   International Panel on Climate Change
ISPAN -   Irrigation Support Project for Asia and the Near East
IW(R)M -   Integrated Water (Resource) Management
JMP Consulting – An engineering consultancy, based in Didcot, England.
KADCO company - Kingdom Agricultural Development Company
KAN -   *Knooppunt Arnhem-Nijmegen*, Intermunicipal initiative for (economic) co-operation
KfW -   Ktredianstalt für Wiederaufbau, German development assistance agency
KCL –   King´s College, London
KHRP -   Kurdish Human Rights Project
KivI -   The Dutch Royal Society of Engineers, the Hague.
KHRP -   Kurdish Human Rights Project
LGED -   Local Government Engineering Department
LLTB -   *Limburgse Land- en Tuinbouw Bond*, provincial farmer's Union for Limburg.
LPA –   Local Planning Authority, UK
MAFF -   Ministry of Agriculture, Fisheries and Food, UK, predecessor of DEFRA.
MER –   Milieu Effect Rapportage, Environmental Impact Assessment
M(l)n -   million
MP -   Member of Parliament
MW -   Megawatts
MWEFAS -   Maidenhead, Windsor and Eton Flood Alleviation Scheme
NATO –   North Atlantic Treaty Organisation
NBAC -   Nile Basin Action Plan
NBI -   Nile Basin Initiative
NEI -   Netherlands Economic Institute
NIMBY -   Not In My Back Yard
NLG –   Dutch guilders. 1 Euro – NLG 2.20
NPV –   Net Present Value, an economic project assessment methodology
NPDUE -   National Project for the Development of Upper Egypt
NRA-TR -   National Rivers Authority, Thames Region.
NRW –   Nordrhein Westfalen, a populous German Land bordering on the Netherlands.
NSADP-   *Northern Sinai* Agricultural Development Project
OAU -   Organisation of African Unity
ODA -   Overseas Development Assistance

OECD -   Organisation for Economic Co-operation and Development
OPEC -   Organisation of Oil Exporting Countries'
O&M –   Operation and maintenance (i.e. of infrastructure)
PADR –   Public Authority for Desert Reconstruction
PSIRU -   Public Sector Integrity Research Unit
PAGN -   Project Appraisal Guidance Note
PKB -   *Planologische Kern Beslissing,*. a spatial planning procedure
PET -   Punctuated-Equilibrium Theory
PJTC -   Permanent Joint Technical Commission
PKK -   *Partiya Karkerên Kurdistan,* Marxist revolutionary separatist group, terrorism, popular resistance and politics
PPG -   Planning Policy Guidance)
PR -   Public Relations
RAP -   Resettlement Action Plan
RAS -   Research and Advisory Services, Dhaka (an NGO)
RLDC -   Regional Land Drainage Committee
RIZA –   *Rijksinstituut voor Integraal Zoetwaterbeheer en Afvalwaterbehandeling,* Public integrated freshwater and wastewater treatment research organization, Incorporated in Dutch Water Institute since October 2007
RMO -   *Raad voor Maatschappelijke Ontwikkelingen* an authoritative advisory body to national government on social issues
RSPB -   Royal Society for the Protection of Birds, UK.
RWS -   *Rijkswaterstaat,* the Dutch Ministry of Public (Water) Works, The Hague.
SGPs -   Strategische groenprojecten, Strategic Green-Area Project, Netherlands.
SCOT -   Social Construction of Technology
SoP –   Standard of protection (i.e. from floods)
SPLA-M -   Sudan People´s Liberation Army / Movement, the collective military and political wings of the South Sudan independence
SOAS –   School of Oriental and African Studies
SoP -   Standard of Protection
STS -   Science and Technology Studies
TACDAM -   Centre for Research and Assessment of Historic Environment) Turkey
TAPP –   Technical Assistance Project Proform, i.e. the project Terms of Reference
TAW –   Technische Adviescommissie voor de Waterkeringen, Dutch Technical Commission for Flood Defences. Reformed as the ENW in 2005.
TECCONILE-Technical Co-operation for the Promotion of the Development and Environmental Protection of the Nile Basin
TINA –   'There is no alternative´
TVA –   Tennessee Valley Authority
TWh –   Tera Watt hour, 1000 mega watthour, 1000 000 kilo watt hour
UNDP -   United Nations Development Programme.
USAID -   United States Agency for International Development
USSR -   Union of Socialist Soviet Republics, the Soviet Union
VROM -   Dutch Ministry of Housing, Spatial Planning and Environmental Management, The Hague
VVD –   *Volkspartij voor Vrijheid en Democratie,* liberal party of the right, Netherlands.
WARPO -   Water resourcesd Planning Organisation, Dhaka.
WEED –   World Economy, Ecology and Development (*Weltwirschaft, Ökologie und Entwicklung*), German activist NGO
WL Delft -   the former *Waterloopkundig Laboratorium,* Delft.Hydraulics (Laboratory)
WUG -   Water Users' Group

Chapter 1: Introduction: the politics of floods and fear

'… the analysis of the political strategies surrounding the construction of insecurity is necessary to understanding some of the most influential social and political processes of our time. This is why more research on the politics of insecurity is needed' (Béland, 2005: 20).

1.1 INTRODUCTION

1.1.1 WHY FLOOD POLITICS?

Flood politics are not like normal politics - they are about survival, they are security issues. Security is being 'without a care' (*s(in)e cura*) - in German *Sicherheit* is safety, security and certainty in one (Bauman, 1998). Floods deeply challenge *Sicherheit* in each of its three meanings. Similar to other complex emergencies like earthquakes or wars, extreme floods reduce people to vulnerable existence, surviving in a situation where normal rules and laws no longer obtain. The way hydrological risks to be dealt with are of decisive influence on how secure people feel.

The present study will look at the political aspect of flood protection, which shapes the decisions on dealing with risk. Floods not only frighten people in society, they incite fear of social chaos and societal ungovernability in authorities, who are expected to provide security within their territory. The public outcry after flood events can seriously challenge a governmental body's legitimacy, which may be blamed for unsatisfactory warning or ineffective flood protection.

But the role of protector, taking responsibility, can also bring extra legitimacy. If a flood happens, someone gets blamed, but if it is contained, someone takes the credit. In drought- or flood-prone states, river projects can play a key role in legitimising hegemonic rule of water agencies. Water is a political good that can enhance (or reduce) a political actor's legitimacy base (Donahue and Johnston, 1997).

Despite advanced techniques of risk assessment and management that give the appearance of controlling the future, bids for security (its supply and demand) cannot be based on 'objective facts'. Risk is about what *might* happen and therefore about fear and anxiety. The analysis treats risk and security as constructs, as *frames* that give meaning to a bewildering reality. I propose this sense-making may have a political instrumentality to it: it legitimises certain agendas over others. Even if the frames ultimately prove unsuccessful they may reap the desired effect of landing the issue high on the political agenda. The present study seeks to bring a coherent theorisation and conceptualisation of the political construction of security and risk in water management, responding to Béland's (2005) observation that '(t)he construction of threats and insecurity through framing processes is a major aspect of the politics of insecurity' (Béland, 2005).

The study focuses on infrastructural projects designed to prevent traumatic flood events happening. Engineers increasingly devise participatory processes promoting stakeholder involvement. For this study I researched five schemes (and one that never made it), several of which were prize-winning designs involving a degree of public participation - and still, each provoked a level of controversy (politicisation) unforeseen by its initiators.

The study sketches the genesis, conflicts and outcome of six river plans: the Toshka project in Egypt, the Ilısu hydropower dam in Turkey, the FAP-20 compartmentalisation pilot project in Bangladesh, river widening and deepening on the Maas and controlled flood storage in the Ooij polder in the Netherlands, and the Maidenhead, Eton and Windsor Flood Alleviation Scheme in Britain.

When I started studying these cases at the turn of the Millennium, I could not have predicted that all the cases studied were going to end up heavily dented:

- Most of the consortium walks out and the project is shelved for five years (Turkey)
- Phase One is completed, but many wonder if the next phases will ever be carried through (Egypt)
- The project is completed but never sees its follow-up (Bangladesh)
- The project is reduced and much of its ´green´ content cut (Netherlands, Maas)
- The infrastructure for controlled flooding never even gets built (Netherlands, Ooij)
- The infrastructure is completed, but crumbles at its first test (Britain)

Flood projects bring contest over the risk, over who should be protected by whom at what sacrifice. These issues are so fundamental they warrant intense political debate and action. It is therefore prudent to anticipate that such projects will always be politicised, although this rarely really means the end of the project.

The analysis shows that such politicisation is always to the apparent surprise of project initiators. They may be dismayed to learn that not even a well-organised trust-building participation process, 'joint' or 'open planning', will exempt river planners from such a political process.

I propose that a crucial factor explaining this is that flood projects not only promote some people's security, they often significantly reduce the security of others. A river regulation plan that regulates floods and promises economic development for the area is not necessarily appreciated, given recurring social and environmental protests against dams, embankments, spillways and detention basins as unrequited interference in local affairs. The projects appear to have disregarded essential values of project-affected stakeholders, inciting anxiety, anger and conflict.

In the present study, we shall encounter spaces where some stakeholders blame government for failing to stop the flood or even starting it, some dread the invasion of their space and freedoms, making them feel fenced in, 'enclosed', and still others who feel deprived of protection, bereft of basic political rights, either in the name of security or efficiency. All of these however can 'speak security' to try and turn the tables.

In *Security. A New framework for Analysis*, Barry Buzan, Ole Waever and Jaap de Wilde claim that saying 'security' legitimises extraordinary measures that are otherwise impossible to achieve (Buzan *et al.,* 1998). The speech act of 'securitisation' is a powerful move for closure, foreclosing political debate and choice for the sake of swift emergency action. While states are mandated to declare threats, so can others (Litfin, 1997). Still, not everyone advocates 'securitising' environmental issues (Krause and Williams, 1997). If river schemes can make one more rather than less vulnerable, it is tempting to distrust the political process and argue against state involvement in flood security. I will argue, though, that one should not throw the baby called Security out with the bathwater. We need a well-coordinated and accountable collective security apparatus to counter collective insecurity (see also Béland, 2005). While Béland rightly reminds us that state protection also has an oppressive side, it is not so clear flood victims are better off if condemned to the alternative – self-help.

1.1.2   *THEORETICAL RELEVANCE*

The key theoretical aim for this thesis is to develop an analytical framework for understanding discursive risk and security strategies. Risk studies and security studies traditionally study phenomena of danger at different geographical levels: the local and international level, respectively. Recently the two disciplines seem to be drawing towards each other as local risks take on international or global dimensions (global warming, environmental refugees) whereas security studies increasingly recognise the sub-state and non-military dimensions of conflict - and

indeed, are developing an understanding of security which goes beyond (violent) conflict. In both disciplines, the legitimacy of social arrangements for dealing with security and risk, and in some cases even of the political system as a whole, are now debated, resulting in the identification of risk as the new danger for states (Giddens, 1999) and a plethora of new understandings of 'security'. The so-called Copenhagen School of peace research has given a fresh impetus to security studies that also places environmental politics in a different light. Regrettably, the focus of the research and debate on the Copenhagen approach is very much concentrated on Europe, specifically on issues of identity, integration and migration issues (Wilkinson, 2007). The approach however merits wider application, both in terms of geography and subject matter. Not only has 'securitisation' become a household word in International Relations and peace studies, it echoes in other disciplines such as cultural and media studies and human geography. The approach has become more current in international hydro political analyses (Turton, 2001, Jägerskog, 2003, Phillips *et al.,* 2006), but these studies applied security concepts to situations of scarcity rather than excess, i.e. floods. The present approach sheds light on the framing and legitimisation and delegitimisation of proposed 'solutions' to disaster challenges. A comparative approach highlights similarities and differences in context.

Given the proximity of wars and emergencies in their potential for social disruption it is surprising that the securitization approach has not made similar inroads in disaster studies literature. The constructivist approach underlying securitisation theory permits a dispassionate account and analysis of the politics of emergency.

The present study applies the approach to natural hazards and river development as potential sources of securitisation, given the existential threat, urgency and exceptional measures taken to contain rivers. Drawing on three current international narratives of 'water wars' and peace (in 1.4), I will identify three similar narratives of (de)securitising floods. It tests this idea on the basis of an analysis of six recent infrastructural river interventions in five countries – two in Western Europe, one in South Asia and two in the Middle East. The latter two regions have often been singled out as flashpoints for international water conflict.

1.1.3   *CENTRAL RESEARCH QUESTION*

On the basis of security literature, the present research starts from the proposition that ´saying security´ would successfully legitimise river management projects, close the debate, and boost the role of the securitising agent in the river management regime. This leads me to the following central research question:

What role do 'security' frames play in (de)legitimising flood management projects, and how does this affect the political and river management regime context?

Answering this question involves the following tasks:

1. developing a conceptual framework that brings together security studies and flood management studies from a constructivist perspective.

2. identifying and analysing arguments and frames for and against flood security projects, the alternatives advanced and the extent to which these were considered.

3. identifying the different discourses and security speech acts of 'security' and 'risk' employed to influence key decisions on those projects (closing or opening security frames) and whether they legitimise these alternatives.

4. charting flood governance regimes impinging on decision-making on water regulation projects and hegemonic actors and frames governing them.

5. analysing the role of flood events and river projects in challenging this regime.

6. analysing whether the findings for the above questions are similar in different national governance settings.

To help answer these questions, I develop a conceptual framework around concepts of regime, crisis, framing, closure and hegemony, applied to six case studies in five different countries.

1.1.4   ORGANISATION OF THE BOOK

The remainder of this chapter is devoted to conceptual development and case selection.
The next Section will first look at the importance of security to the state and the challenges of the changing 'security governance regime' (1.2), in its administrative and technological sense. It introduces the idea of *closure* and notes the role of crisis events like floods or even a flood project in 'opening up' the regime overnight.

As a crisis can be 'constructed', the focus turns to the role of discourse and (strategic) framing of risk and security issues (1.3). The Section goes into contest over frames, the formation of discourse coalitions and hegemonic strategies, and closes with a definition of politics of flood insecurity. Section 1.4 makes methodological observations on a constructivist 'positioning' approach and pointers of identifying successful and unsuccessful securitising moves. The final section (1.4.4) explains the case study selection process. and goes into more detail about the research methods employed.

The remaining chapters will analyse the six case studies, starting with the two Middle East ('dry basin') studies discussed in Chapter 2 and 3, Egypt and Turkey. The politics of the Toshka river diversion scheme and the Ilısu hydroelectric dam are discussed at the domestic and international levels. Chapter 4 compares the two cases in the context of the three security narratives and finds this leads to three very different assessments of the politics of the projects.

Chapter 5 until 8 discuss four 'wet basin' studies: Bangladesh, the Netherlands (Ooij polder and Maaswerken) and England. Flood Action Plan 20, the disputed project discussed in Chapter 5, compartmentalized an existing polder in Central Bangladesh, seeking to a safer environment for food production and to democratize decision-making on when to drain monsoon water. The Maaswerken, Chapter 6, deepened and widened the river Maas in the south of the Netherlands to provide a safer but also more natural river environment. While the Maas is a natural border with Belgium, the Ooij polder, on the Rhine, connects the Netherlands with Germany. The polder was slated for controlled emergency flood storage in case of extreme events but as Chapter 7 discusses, the polder dwellers refused to be sacrificed. The final case study zooms in on the river Thames where a flood relief channel to protect Maidenhead, Eton and Windsor caused a commotion.

Chapter 9 brings all cases together and develops three flood narratives analogous to the security narratives in Chapter 4. Chapter 10 concludes by linking back the findings from the river management studies to security theory.

1.2   THE FLOOD REGULATION REGIME: CONTROL OVER RIVERS AND PEOPLE

Flood managers may be the only people who pray for a really good periodic disaster. The Dutch paraphrase 'Give us our daily bread and a flood every ten years' will sound familiar to civil engineers in Britain, Bangladesh and in many other settings, even Egypt where one might prefer the flood to appear every single year.

Flood experts however do not normally make the rules, and they do not always have their way. The way environmental hazards like floods are managed are a reflection of how society is organised, the governance arrangement or *regime* - the division of labour and responsibility

between public and non-public actors to provide stability of expectations, and thus durably legitimizing certain solution alternatives over others.

Security politics has important consequences for the decision arena: who can take decisions, who has responsibility, what options for redress are there? As a regime provides stability of expectations, it durably legitimises certain solution alternatives over others (Bijker, 1995). The ensuing resource distribution can become ´closed´ and ´fossilised´, until a new frame or crisis event opens the regime up again.

Disasters are moments when nature escapes human control; it is hard to imagine effective disaster management policies without the aim of control (Hilhorst, 2003: 6). Engineers are trained to look at the world as a control system, in which they manipulate parameters and they solve problems (e.g. see Geldof, 1994) so that the system will not be overwhelmed. Yet the only really effective way to impress on people that action is urgently needed is the arrival of a high water event. While the flood stays away, it is hard to convince decision-makers to agree to interventions to manage the river. Other concerns always seem more important than containing the river, which costs large amounts of money and interferes with people's everyday lives. When the flood calls, it is a rare and limited window to 'do something', to intervene and avert the threat or seize a development opportunity. The window is brief, so best to make good use of it.

Given the state's identity as security provider, the ´marketing´ of security by playing on insecurities to generate or foreground ´demand for security´ is part and parcel of politics. The present Section will therefore first discuss the role of the *state*, then changes in the governance arrangement thereafter and then the role of a crisis.

1.2.1 SECURITY GOVERNANCE

Historically, states have not always enjoyed supremacy, and have often needed to legitimise themselves through warfare (Tilly, 1985). Currently, citizens have no choice but be protected by the state, unless they stage a *coup d'Etat*. The Westphalian state system, instated in 1648 to put an end to several long European wars, vests the legitimate use of the means of violence and the power to declare a state of exception solely in the sovereign state. This power to instate or shore up the rule of law States can make, but also break the law for the sake of order in the face of perceived chaos constitutes the very essence of sovereignty. According the German political philosopher Carl Schmitt (Schmitt, 1922) this *decision* is even the very essence of the political: it determines the distinction between friends and enemies, reconstituting actors as political actors (those with rights) and outcasts (those without rights) who find themselves reduced to what the Italian philosopher Giorgio Agamben (1998) has called 'bare life'. The normal order is dependent on this power. While European states have rarely experienced states of emergency of late, it is far more frequent on other continents. Bangladesh, for example, declared a state of emergency in 2006 to deal with political chaos.

The urgency of a threat or crisis justifies bypassing normal political debate, budget considerations and public accountability and transparency, as well as and civil rights like privacy and a voice in decisions affecting them. Under an authoritarian regime, political contest, consultation and co-operation with stakeholders would be an anomaly. This may suit some states well as states cannot always be sure of their monopoly on sovereignty.

´Weak states´ may feel threatened and in competition at the domestic level with regional strongmen, separatist forces or religious movements that do not recognise their authority. As Agamben (1998) has warned, a state which has security as its sole source of legitimacy is a fragile organism: it can always be provoked by terrorism to become terrorist itself. The state can act destructively to save the population from destruction. An insecure state, beleaguered from all sides, may seek certainties by pursuing dangerous routines and fall into a pattern of regression (Mitzen, 2005) and repression. Chapters 2 and 3 will investigate to which extent Egypt and

Turkey are such 'security states', while the other cases assess if, and how, flood defence plays a role in the legitimacy of the other states, especially their water departments.

A state of emergency or state of war is not cast in stone; a state can change its 'mind', its self-image as a consequence. A currently influential school of Constructivism in International Relations (Wendt, 1999, Checkel, 1999) claims that states have identities and security needs, especially a need for stability of expectations. If these needs can be met otherwise, there is no need to work in security mode. Threats may become less threatening over time, conflictive relations may become friendly. Re-framing an issue as 'non-security' opens the political arena up: it can promote the role of non-state actors and bring in governance alternatives and other, non-military foci for protection. When there is no clear enemy or crisis to deal with, the united societal front against the challenge dissipates into factions (Roe, 2004). The liberal (Lockeian) project found in European democracies is a contest between a plurality of contenders.

Discussions of contemporary security studies have involved both 'wideners' and 'deepeners' (Hough 2004):

- 'deepeners': 'deepening' security referents to include sub-state categories, that is, communities or individuals rather than states become the focus for protection.
- 'wideners': 'widening' security categories beyond the military domain: economic, environmental, societal, political security may be deemed survival issues. The 'new security agenda' is focused on *societal* emergencies and vulnerabilities (Sundelius quoted in Ekengren, 2004)

A governance focus finds that there is not only a 'widening and deepening' of security 'referents', but also of 'security suppliers'. 'Security governance' is a newly emerging, and therefore still underdeveloped concept to analyse new social arrangements for security provision (Krahmann, 2003). Modern states faced with demanding citizens and lobbies, and with knotty policy issues that reflect the increasing complexity, diversity and dynamics in today's societies (Kooiman, 2000). They find it hard to meet the presumed or expressed demand for security alone. To fill the gap between demand and supply, non-state actors present themselves and may be enlisted or co-opted to help out in providing security. The police, prisons, protection and intelligence services are currently being (part-)privatised in several countries while the war in Iraq is fought enlisting private companies. Private and NGO actors are likewise of growing importance in humanitarian relief after disasters. This may improve the governability of danger and risk, but also present problems of transparency and accountability, control, coordination, and efficiency (Krahmann, 2003).

A currently popular narrative claims that the world is becoming increasingly 'flat' (Friedman 2005): power distances get smaller, unilateral control is relaxed. The (contestable)[1] ´government to governance´ narrative paints a picture of a past where public services were rendered in a vertical manner, and now are increasingly horizontalised: less hierarchy, more lateral co-ordination.

However, the vertical aspect may be as important to the analysis. A twin trend towards decentralization and internationalisation of policy suggests a concomitant vertical differentiation of governing powers at work. Thus, the European Union's subsidiary principle stipulates that policy should be made and implemented at the lowest relevant level, placing more decision power in the hands of local authorities and participating citizen organisations. Meanwhile the overlay of international actors. notably the European Union (the European Framework Directive of 2000 and the High Water Directive of 2006) set standards that impinge on member states' national policies while donors and consultants may overrule the (de)securitising moves of statesmen. The European Union is also seeking to make transnational civil defence arrangements (Ekengren, 2004).

TABLE 1.1 Horizontalisation and verticalisation of governance
NGO= Non-Governmental Organisation, CBO= Community-based Organisation.

Sector / Level	Private	Public	Civil society
International	International business	International	International NGOs
National	National business	**State**	National NGOs
Local	Local business	Local authority	CBOs

While relations between 'partners in governance' are unlikely to be egalitarian, their roles may be fluid. The governance domain begins to look like an open 'network' (Goverde *et al.,* 2000) that is in flux but has a degree of close coupling between actors. Karen Bakker *et al.* (2006) perceive this movement more like a shift in emphasis, from the vertical levels of governance to the functional mechanisms of government. There is no 'either/or' but 'and-and': both state and non-state actors take roles: they co-ordinate with each other in top-down hierarchy, but also horizontal 'heterarchy' and 'free interaction' in society (Kooiman, 2000). While such authors appear to project their hopes for a better world onto governance, others are sceptical. Bustamante and Palacios (2005) for example are concerned that the concept depoliticises essentially political issues of distributive justice and rights. In the present study, an analytical rather than normative approach to governance will be attempted (Hood and Baldwin, 2001).

The new, dynamic arrangements for security at different geographical levels have given rise to a blending of the literature on governance in Public Administration and regimes in International Relations. As a result there are various ways of conceptualising the mechanisms of risk and responsibility to provide order and stability of expectations in an issue-area, such as environmental policy arrangements (Arts and Tatenhove, 2000) and risk regulation regimes (cf. Hood, Rothstein and Baldwin, 2001). For the purposes of this study, the 'regime' for dealing with an issue-area such as river management will combine and integrate three foci of ´patterned behaviour´ (Puchala and Hopkins, 1983) noted in regime theory: a regime will be said to consist of the *actor* coalition involved, the *rules and roles* they take on with respect to each other, and their *knowledge* and action capacities (after Hasenclever *et al.,* 1997) (see Ch. 4, annex for background and application). While regimes describe co-operation in interstate relations, the literature on governance looks at multiple levels of organization. They tend to focus on the horizontal and vertical moves away from the state as pictured in Table 1.1 above.

While painting a more intricate picture of how security issues are dealt with, such a picture underexposes two important groups: the expert community and local, disaster-affected stakeholders. Buzan *et al.* (1998: 72) note that the way academic agenda structures the political agenda is 'exceptional'. Given the long and prominent history of *experts* in (infra)structural river management, the role of science and technology in the way flood hazards are dealt with merits special attention. Our focus on *projects* moreover means a focus on the project's interface with the stakeholders in the *local* domain.

Following Hilhorst (2003), I shall therefore focus on the interactions within three specific social domains that share practices with respect to hazard management:
- *governance sector* (decision-makers, funders, bureaucrats)
- *security experts* (scientists and managers)

- *local actors* at risk from floods – or as the case may be, from flood projects. Actors within these domains are supposed to be co-ordinated and co-operative, but Hilhorst notes this is an exception rather than a rule.

Having discussed the governance sector at some length, I will now turn to the domain of experts and technology. The local domain will be discussed in Section 1.2.3.

1.2.2   SCIENCE AND TECHNOLOGY

A central concept in the study is (en)closure´, taken here in both its technical, political and discursive sense. If you close off a river and enclose its stream by *technological* means, you capture a resource that others see as a common pool resource. *Political closure* disenfranchises actors from having ¨voice´ in decision-making. Weber (1947) highlighted the concept of *social closure* which creates in- and out-groups, selective or all-inclusive participation. Closure has a distribution effect on who gets ´voice´, responsibilities, resources, constraints, and which actors, factors, alternatives are excluded. *Discursive* (rhetorical) closure, finally, excludes debate and alternatives and puts the audience in a position from which everything is 'obvious' (Chandler, 2007:127). It was noted that a core frame, technology or axiom, once selected, tends to reinforce itself and becomes almost unassailable. Narratives under-girding these frames may become 'canonised' in institutions and 'normalised' in everyday institutional practices (Miller, 2000). We will return to discursive closure in Section 1.3.

The water projects under review can all be seen as technological innovations, intervening in a social reality but also shaped by that reality (Pinch and Bijker, 1987). Science and Technology studies show that technology is never politically neutral - dikes and dams are 'thick with politics' (Bijker, 2007). Thus new 'paradigms', new ways of dealing with a technological challenge, are not merely the result of progressive insight, but of contest. Pinch and Bijker (1987) show that a great number of actors are involved in the development of a knowledge claim or technology, which shows up conflicting interests and power relations. Bruno Latour, a protagonist of Science and Technology Studies conceives of innovation as the continuation of politics by other means (Latour, 1987). As it arrives on the scene, a new knowledge claim or technology has different meanings for different groups (interpretative flexibility). The *type of solution* needs to be facilitated and legitimised, which means it will not only be judged on its technical merits. Therefore there is likely to be debate, or even conflict, over this claim. The debate can be cut short either through rhetorical closure (explicitly or implicitly declared closed) or the problem being redefined (defined away). Once selected, a core technology or axiom, tends to reinforce itself and becomes almost unassailable. A 'paradigm', an exemplar of how things should be done, emerges. This creates a stable environment. *Socio-technical regimes* are networks of rules and assumptions in which an established technique gets its stability (Geels, 2004). Rival technologies will remain underfunded and underexplored. Developments within this dominant paradigm tends to be incremental in nature rather than radical (shock wise) until further optimisation is no longer possible and a 'shock' or challenge opens the 'frame' up. This phenomenon is known as *closure* (Pinch and Bijker, 1987).

The type of technological regime has environmental as well as institutional and social consequences. Mumford (in Miller, 1986) argues that large, closely coupled technologies are more compatible with top-down bureaucratic (centralized) management, while dispersed technologies are more democratic, as they can be controlled locally. In the water sector, we can juxtapose high dams with groundwater pumps and flood walls and flood-proofing of individual neighbourhoods and arrive at the same conclusion.

Particular technologies thus serve some groups better than others. Physical infrastructure creates what Callon (1986) has termed 'obligatory passage points' or nodes. The illuminating concept of 'pipelines of power' (after Turton, 1999)[2] captures that infrastructural layout has

distributive consequences: who controls who gets resources first, who gets them later, and who never gets them. Egypt, but also India, Israel and indeed the Netherlands built their interlinked water grid so that they can move water around from any location to another, to bring it where it is needed or to drain it where it is in excess, or – in the Dutch case – as a water defence line to stop enemy invasions. In times of crisis, governments decide who gets priority treatment – who continues to receive water in times of drought, or which areas will be saved in times of flood.

We can visualise a continuum denoting whether the chosen technology constraints and controls the river (e.g. a flood wall) or frees up the river (a dike relocation to widen the channel)[3] which relate with the regime's treatment of the river as a danger or an opportunity, as enemy or friend (Fig.1.1a).

A state that takes the lead in controlling and developing all water resources on the territory to guarantee the security of supply, is said, after Mark Reisner's (1993: 112-114) phrase, to be on an 'hydraulic mission'. This is a highly 'closed', Etatist form of river governance - open-ended in its ambitions and interventionism, but one-dimensional in its state-society relations, as it mobilises people and resources in a top-down, command-and-control fashion to realise its development schemes for irrigation and hydropower production (Wittfogel, 1957). A state can bring water to people through infrastructure, or people to water through resettlement. Either way, the control of water is thus closely related with the control of people.

But while under the hydraulic mission, the sky appears to be the limit, many 20th-century developments ran up against 'closing basins'. This is said to have triggered a different, 'reflexive' form of management, more aware of the limits of environmental carrying capacity for water development and the need to diversify. It opened up the regime to more economically rational water management, environmental conservation, and stakeholder participation with stakeholders (Meissner and Turton, 2003). In terms of my focus on closure, this brought an 'open' form of water governance; limited in its ambitions for control, intervention and expansion, open-ended in the range of alternatives. Water is no longer a resource, but is recognised for other values too, and alternative uses. A continuum is pictured in Fig.1.1b.

FIG. 1.1   Stream and social intervention continua

Fig. 1.1a: STREAM INTERVENTION CONTINUUM:

Closed -- Open
Taming the river   Living with the river

Fig. 1.1b   SOCIAL INTERVENTION (GOVERNANCE) CONTINUUM:

Closed -- Open
Top-down governance   Network governance

So far, we have discussed the role of scarcity management in river control. In *flood management*, dealing with temporary excess, the state likewise has more 'open' and 'closed' control strategies that keep the river away from people or people away from the water. By influencing people's risky behaviour, security policy is hoped to reduce risk to life and assets. While drought is a creeping catastrophe, floods are sudden and immediate, with a capacity to overwhelm the social system in one fell swoop. The potential for such crisis events to change and open up the scene has been subject to much speculation.

1.2.3   LOCAL DOMAIN

Faced with a disaster, it is the local domain that bears the brunt of immediate coping and relief efforts (Kirschenbaum, 2004). A 'from government to governance' approach backgrounds that before governments became involved in security management, people developed and institutionalised local responses to hazard on the basis of their local knowledge of the area, to survive in the most adverse environments (van Dijk and de Bruijn, 1995). When central states initiate disaster management approaches, these are set in a particular technological frame that may be at odds with local responses, peculiarities, perceptions of insecurity. However, of late project initiators have sought to make their projects more participatory and interactive, so that local people may have a voice in decision-making that affects their lives. The present study does not so much concentrate on charting these coping mechanisms but rather on the interaction between the central and local levels when a project is planned and implemented.

1.2.4   CALLING A CRISIS

The decision-making regime, it was noted above, may fossilise and in so doing prevent innovation. But political actors may seize on a *crisis* to enter, leave, or improve their position, while others use the same event to reinforce theirs or stifle alternatives.

A disaster is a crisis of control. A crisis, in turn, is

'an event, concentrated in time and space, which threatens a society or relatively self-sufficient subdivision of society with major unwanted consequences as a result of the collapse of precautions which had hitherto been culturally accepted or adequate' (Turner, 1976).

Crises expose and question the taken-for-granted arrangements in society (the regime, the governance set-up), and provide windows for changing them. They reveal and call into question social arrangements that in normal situations remain unnoticed or undisputed. 'Abnormal times' can bring to consciousness alternative conceptions of the world (Antonio Gramsci quoted in Lukes, 2005a). If system legitimacy itself remains intact, the legitimacy of specific actors may be at stake.

The public outcry after flood events challenges the legitimacy of a governmental body or the technological frame, which may be blamed for unsatisfactory warning or malperformance of the flood protection system. Others within and outside the ruling regime may present themselves as alternative security suppliers. This (de)legitimisation drive is often fanned by non-participant intermediaries such as the press, who amplify risks (Pidgeon *et al.,* 2003) and as a rule paint conflicts in shrill colours (Vultee, 2007).

The present research looks at floods as focusing events that may break the status quo. According to Punctuated-Equilibrium Theory (PET), a crisis disturbs the equilibrium and opens windows of opportunity for another coalition pushing for radical, self-reinforcing change (positive feedback), ´punctuating the equilibrium´ (Baumgartner and Jones, 1991). A new problem definition can de-stabilise the status quo in the decision-making regime such that actor coalitions are realigned and new actors find their way into the process (Baumgartner and Jones, 1991). Both in flood policy and in regimes this has certain inevitability: if you repress risk and tension, the crisis will only be bigger when it happens – you have only displaced the risk from 'high incidence, low consequence' to 'low incidence, high consequence' (Bak, 1996 calls this 'organised criticality').

Radical change after a crisis clearly cannot be taken for granted. Pelling and Dill (2006) note that disaster enables political leaders to regain or even enhance their legitimacy and repress spontaneous social action. A flood, or the fear of one, can then be expected to open a considerable window of opportunity in which governments can get away with draconic emergency measures and schemes without political fall-out.

Declaring and responding to an environmental crisis such as a drought or flood can thus unfold either to maintain or change the status quo. But while declaring a crisis brings advantages and resources, it also carries special responsibilities, so that *not* declaring a crisis where others would declare one can be preferable to a political actor. Some high-water events and hurricanes are called crises, some are not, as illustrated by Hurricane Katrina. The hurricane did was not awarded national disaster status, which led to a much-criticised delay in crisis response.

After all, short of an acute threat - a loaded gun pointed at one's head, a tsunami wiping out a town - many 'dangers' and 'crises' are ambiguous. A crisis is only a crisis when a situation is declared and accepted to be one. Given this unpredictability, I decided to see what happened in actual high-water events.

Meijerink (2005) and Johnson *et al.* (2005) analysed floods as windows of opportunity for a new river management philosophy.[4] (Liberal) regime theory also teaches that a 'catalytic shock' can turn the decision-making regime upside down (Young, 1994)[5]. But they did not look at the potential of flood projects for overturning the regime. Lowry (2006) sees *both* disasters *and* river regulation schemes as 'focusing events' that can herald major change. This widens our scope to the regime change potential of conflict. A flood scheme can also call into question the local social arrangement of rules, roles and knowledge in managing the resource, i.e. the regime, and *changes people's (perceived) security positions*. As a result the project itself is a 'risk' (both in the sense of a threat and an opportunity) to stakeholders in flood management.

Political ecologists have noted that a crisis can be *constructed* and declared for a particular goal. The flexibility of the 'crisis' label allows declaring some issues security issues and ignoring others. Political ecologists show that calling an environmental crisis and/or securitising biodiversity (wildlife conservation) decisively changes power relationships between socio-economic groups (Lees, 2001)[6]. A 'crisis', a successful representation of urgency, works like a tin-opener or window-smasher to break the closure, with important political and institutional consequences.

The next section will explore the concept of construction and framing in more detail, along with the associated body of knowledge on how people create stories and narratives to make sense of the world. It will especially zoom in on one particular frame possessing particular 'political magic': the security frame. This brings us to a short exposition of the constructivist approach of the Copenhagen School exemplified by Barry Buzan, Ole Waever and Jaap de Wilde's framework.

1.3   MOVES FOR CLOSURE: STRATEGIC FRAMES, NARRATIVES AND SECURITY SPEECH ACTS

'What man desires is not knowledge but certainty' - Bertrand Russell

"There are not only struggles over security among nations, but also struggles over security among notions. Winning the right to define security provides not just access to resources but also the authority to articulate new definitions and discourses of security, as well" (Lipschutz, 1995).

1.3.1   WHY FRAMES?

Cultural anthropologists teach us that we do not perceive the world 'as it is' - rather, we devise stories about the world that make sense of the messy reality we are presented with. People tend to dread uncertainty and ambiguity: the fundamental *uncertainty* over the future procures an existential feeling of not being in *control* (Lupton, 1999). (for the difference between uncertainty and risk. see Box 1.1 below).

   Risk is about fear of loss, but without meaning, we ourselves are lost. We construct a coherent world-view that lends logic, a meaning to our existence. Given the amount of uncertainty, people create cause-and-effect stories to 'fill in the blanks'. Frames mobilise the values against which 'risks' and policy 'problems' are judged to exist, and point at a way out. These stories have important social effects, since the way the problem is *framed* delineates the range of alternatives considered and the division of responsibilities in the governance regime.

   In their interaction with the world, people create representations that become legitimate (Berger & Luckmann, 1991 [1966]: 110ff) and try to convince others that it is the proper view. A *frame* is a persuasive device used to 'fix meanings, organize experience, alert others that their interests and possibly their identities are at stake, and propose solutions to ongoing problems' (Barnett, 1999: 25). Frames are incorporated categories of perception. 'Norm entrepreneurs' promote new ideas such that they resonate with the intended audience (Nadelmann, 1990: 482). This skill is known in organisational management studies as the 'management of meaning' (Smircich and Morgan, 1982, Czarniawska-Joerges, 1988).

BOX 1.1. Risk and uncertainty are commonly defined as follows (after Knight, 1921):

1. If you know for sure what is going to happen, that is *certainty*.
2. If you do not know for sure what will happen, but you know the odds, that is *risk*.
3. If you do not even know the odds, that is *uncertainty*.

1.3.2   SECURITY FRAMES

The work of Buzan, Waever, and De Wilde (1998) suggests that security and risk frames are a special frame category. By putting the issue into the domain of the absolute and non-negotiable, such frames can move a decision-making process to a degree of closure that other types of frames cannot achieve because they are about life and death issues. It sacrifices choice for the sake of necessity.

   Security, for Buzan *et al.* (1998), is a speech act (Austin, 1962), that is a way of using language that changes the world by uttering it. While everything we say has the potential of influencing the world around us, some categories have a far more powerful 'social magic' than others. Like making a promise, naming a ship and declaring a couple married, calling something a security issue in the right context, given the right stage, to the right audience makes it so. The 'social magic' of speech acts is that they create and legitimise facts on the ground, calling something a security issue can make it so. Saying ´security' forecloses choice and contradiction: it becomes an absolute that overrides everything else where others might like to dispute aspects of the proposed projects.

   Security successfully presents an as absolute and inviolable, reducing the *range of alternatives and of actors* (and their say) involved in decisions to a minimum. It splits the world into *black and white*: if you are not for it, you are against it; if you are not part of the solution, you are part of the problem. A security speech act does not tolerate half measures - it calls for the 'neutralization,

elimination or constraint of that person, group, object or condition which engenders fear' (Dillon, 1995).

This type of closure depoliticises the issue; it does not, however, kill politics. Rhetorical closure does not necessarily mean that the issue has been 'solved' or even accepted (as Pinch and Bijker, 1987 seem to claim). It is also possible that someone succeeded in 'putting a lid on it' through skilful use of discourse. The united front of discursive closure therefore may obscure power inequalities and the exclusion of alternatives proposed by less powerful actors. Security absolutes may get things done and clear up ambiguity, they can also create antagonism. Where there are winners, there are also losers, where there is inclusion there is exclusion. 'Risk-talk implicitly empowers some people as experts and excludes others as inarticulate, irrelevant or incompetent' (Jasanoff, 1999: 96).

Dangers to security issues are usually far from 'clear and present', they need to be framed as such One issue will become elevated to security status ('securitised'), while another remains unaddressed. Douglas and Wildavsky have argued that out of the many threats we are faced with, we select only those that protect the (political) community (Douglas and Wildavsky, 1983). An instrumentalist (strategic) perspective however does not rule out the possibility that actors project threats for their own political gain. The power to ´close´ the frame not only ends quarrelling but also gives access to the resources of security (for oneself or one's constituency) legal, financial, informational, institutional. This makes it attractive to seek to shape the closure. But the speech does not have to be successful: people do not always spring to attention when a little boy cries 'wolf'. Buzan *et al.* (1998) call the successful performance of this speech act *securitisation.*

A securitising move does not become a successful securitisation[7] without the consent, however grudging, from others. This points at the rather underappreciated roles of *audience* and *social context* in successful securitization (Balzacq, 2005). It takes a receptive audience to turn word into action, to become *hegemonic* in an arena of competing discourse coalitions.

1.3.3   *FINDING AN AUDIENCE: HEGEMONIC COALITION BUILDING*

Security framing takes place within a 'field of power struggles in which securitizing actors align on a security issue to swing the audience's support toward a policy or course of action' (Balzacq 2005: 173). The fragmented *political infrastructure* in liberal democracies can contribute to the need to spread a 'sense of crisis' to get anything done (Béland, 2005). This can 'distort' the message significantly. Moreover, different messages may be intended for different audiences.

Public speech acts are always uttered with an *audience* in mind. Burton and Carlen (1979) show how official discourse is an 'exercise in legitimation', incorporating 'discrepant' discourse and achieving 'discursive coherence'. An emergency, a crisis, a threat to survival, is most likely to generate general consensus (Buzan *et al.,* 1998). Providing and taking *responsibility* for security can procure the provider *legitimacy*, which increases an actor's power (Donahue and Johnson, 1998). Legitimacy is 'the extent to which social or political norms are accepted, especially those applying to the exercise of power or domination of some individuals or groups of individuals by others' (Rush, 1992: 53). All hierarchical power relations must be legitimated at every level of social life from the smallest scale to the level of multinational regimes (Beetham, 1991)[8]. Even Machiavelli recommended that the Prince who seizes power by force cultivate belief that his actions are just and legitimate (Tansey, 1999). It is easier to govern society when authority is accepted than when it is *imposed:* the costs of imposing one's dominance to obtain compliance are higher than those of cementing a platform on which everyone can agree. As Rush (1992: 21) suggests, fear, an unwillingness to accept the consequences of non-acceptance, apathy or cynicism (the opportunity costs of acceptance) can lead to *de facto* acceptance. He contrasts this with *de jure* authority: acceptance of the exercise of power as right or justified by those to whom it is administered

(Rush, 1992: 52). Compliance with a securitisation may thus be impelled by a hegemonic securitisation - not complying means endangering the hegemonic relationship (Stahl, 2007).

A widely accepted taxonomy of authority acceptance is David Held's (1984) continuum of social-political compliance (Fig. 1.2):

Low acceptance (compliance)
    Coercion
    Tradition
    Apathy
    Pragmatic acquiescence
    Conditional agreement
    Normative agreement
    Ideal-normative agreement
High acceptance (compliance)
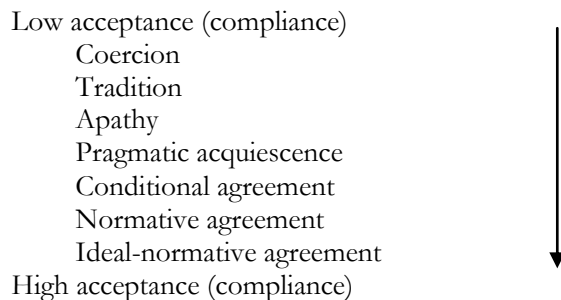
FIG. 1.2   *A ladder of compliance, after Held (1984).*

How does a discourse gain acceptance as authoritative? Different speakers/authors can take an infinite number of positions with regard to the concept. But unless they already dominate the scene, they will need to strike a discursive alliance to promote one's agenda. Discourse coalitions form around what Barthes has called 'empty signifiers' (q. in Chandler 2007), that is, words that do not refer to something very specific, so that they can be filled in different ways by different people. This reduces the number of positions in the arena (shades of grey) to a manageable number.

Forging a discourse coalition or discourse alliance is likely to involve pandering to other actors' agendas that are not too much at odds with your agenda. To enable this, you need to construct a *political formula* to combine threats into a totality that captures these agenda elements, but in which your agenda, and your leadership is seen as the common good. A hegemon - from the Greek *hegemoon*, guide - is the (durably) predominant actor or actor coalition, not in terms of material and coercive power – although that certainly helps - but in terms of authority who can command compliance with his or her rule.

The neo-Gramscian school of International Political Economy, which analyses hegemony, took the stage around the same time the aforementioned linguistic turn in management literature became influential. The discipline (re)discovered the work by the Italian revolutionary thinker Antonio Gramsci on hegemony. Gramsci was inspired by the conservative Mosca who, not unlike today's managerial literature, analysed the strategic construction of political formulas to build and cement hegemonic leadership coalitions enabling a minority to stay in control. By contrast Gramsci, imprisoned by the regime of Benito Mussolini, theorised hegemony with a view to subverting it (Cox, 1981). A concept of control is a *settlement* (a deal) that stabilizes or balances socio-economic forces. Gramsci noted that hegemonic ideas underlying this deal are reproduced not only by states but by societal institutions such as the church, schools and trade unions, who had accepted the agenda of the ruling coalition as the general interest. The resulting sense of solidarity (normative agreement) facilitates compliance and forestalls the threat of political resistance. Gramsci pointed at Fordism, named after the car maker who offered his workers five dollars a day so that they could save up for a Ford car, as an increasingly internationally successful socioeconomic 'deal' in his day, a hegemonic concept of control. As we shall see (Ch. 4) river management was a cornerstone of the 'New Deal' (welfare state), as the Tennessee Valley Authority which integrated flood control and water development project.

This influential approach reminds us that the ideational level is never very remote from practices and material capabilities: the call for arms uttered by an army general is likely to have more influence than that of a schoolboy. The context of (material) power relations may influence the results of a frame contest (Marullo, Pagnucco, and Smith, 1996: 3). Yet neither can a

hegemon durably command the compliance of others in the political arena by relying on the use of force only (hard power), they have to employ a discursive strategy ('soft power') to attract and persuade. Hegemonic rule is thus a judicious combination of coercion and consent. Nevertheless, neither the legitimacy of a security frame nor that of a security provider has to be accepted. The below will go into the different forms of rejecting a security frame - these will be especially interesting for the present study where those rejections themselves use the language of security.

1.3.4   CONTESTED SECURITY

Margaret Thatcher became famous for her favourite categorical claim: 'There is no alternative', whose acronym is ˝TINA´. Her visionary compatriot and contemporary, the cyberneticist Stafford Beer (in van Gigch, 1987)[9] has argued, there is *always* an alternative, even if it is politically more opportune to disallow it. Frames always compete with counter-frames to provide singular interpretations of problems and appropriate solutions. New social groups (discursive alliances) will inevitably form and bring other (environmental, economic, cultural) security values to bear. In any engagement and negotiation process, actors bring new frames into play all the time, foregrounding certain aspects and backgrounding others. It does not mean that security issues have disappeared, but rather that the interpretation of the threat and its solution become more flexible and negotiable. This 'interpretative flexibility' enables the reframing of conflictive situations as non-conflictive and vice-versa. In a securitised situation this flexibility means they are subject to desecuritisation processes; if the context was never securitised to begin with, it means unsuccessful securitisation (that is: successful non-securitisation). The move is disarmed, life goes on like before.

While the securitiser may find it strategically opportune to frame an issue as a security issue, this audience may thus find it strategically opportune to accept or reject the speech act Unintended (possibly uninvited) ´audiences´ may join the fray to contest and reframe the security claim. In analysing the contest over flood management projects, I have looked into the 'counter-frames' offered in the public arena, and have left the possibility open that stakeholders could 'counter-securitise', and as a consequence, politicise, an issue just as well as project initiators.

Constructivists tend to present reframing as a process of 'social learning' - the process of arriving at complementary mindsets (or 'reasons for action') in a network of interdependent stakeholders (Leeuwis, 2004). While the term conjures the image of a studious group seeking to understand the world, a reframing process is equally likely to involve conflict and struggle where power differences make themselves felt (Proost and Leeuwis, 2006). The research indeed zooms in on multiple instances of conflict over river management projects, where securitising moves were strongly contested.

Conflict is 'a social situation in which a minimum of two actors (parties) strive to acquire at the same moment in time an available set of scarce resources'' (Wallensteen, 2002). It reflects and reproduces 'incompatible subject positions', that is, of a diametrical opposition between Us and Them, Self and Other(s), with clearly defined boundaries between them. Such 'pre-productions' tend to escalate, so that conflict over one issue becomes antagonism over everything else. While the conflict may be over only one aspect, the parties involved find themselves daggers drawn over all possible issues: everything else collapses into two categories: black and white, friend and foe. One actor who feels impeded by the presence of an 'other' will start to project all fears and undesirables on this Other. This 'logic of equivalence' (Laclau and Mouffe, 1993)[10] stands in clear contrasted with a 'logic of difference' accepts more shades of grey. Communication breaks down, antagonists speak about each other but rarely with each other. In such a conflict situation, it is not one but two coalitions that need to convince their audience that their non-negotiables should be honoured.

1.3.5   COMPETING WATER (META-)NARRATIVES

Security moves and stories are set in larger (global) narratives, which lend a 'deep structure' and, hence, coherence to ambiguous, uncertain situations. Narratives allow storytellers to be certain about what is essentially uncertain. Like the speech act, the story frames particular solutions in terms of influencing or neutralising action - curbing opportunities for resistance and alternative conceptions (closing the frame) or pushing for particular measures to check, debate and correct security measures (opening the frame).

War or peace?

National or basin borders are far from impermeable to ideas. Chapter 4 will analyse the political relation between floods and security in the context of three competing global discourses, each of which has something to say about the relation between people and the river, as well as between people with the state and between states. In this context I take issue with the view that there is a basically uncontested set of prevailing (hegemonic) ideas in 'the water discourse' (Du Plessis, 2000), Furlong (2006). While several concepts are currently almost unassailable (Wester and Warner, 2002), what constitutes hegemonic water discourse in the 'International Water Relations' community appears to be more in flux than the water discourse authors claim (Warner and Zeitoun, under review). There appears to be a change of 'grand narratives' giving meaning to experienced reality[11].

For the selection of these narratives I will rely on the very similar accounts by Trottier (2003), Stucki (2005) and Brouma (2003), seeking to explain contest for discursive hegemony in the 1990s and 2000s. The three analytical understandings do not emerge in a void; they are the outcome of social interplay.

In which co-existing water narratives can take root - pessimists may postulate a Malthusian 'water in crisis' narrative where optimists see a cornucopian 'fix' which promises an easy way out of the problems. This is especially relevant at a time when water appeared to take centre stage on global agendas.

The end of the 1980s saw a sense of crisis and confusion in both the security and water sector. The can-do mentality, the feeling that every problem can be fixed, that long prevailed in the water world eroded after a succession of setbacks. The Water Decade had brought water to many, but many more were still without water. 1989-2001 was a period of relative ´anarchy´ with no clearly hegemonic arrangement.

Global ´anarchy´ brought, in broad strokes, three types of response, two contenders for discursive hegemony. The first narrative is that of '*water wars*', a Malthusian tale that considers water as a high-politics (security) issue. Robert Kaplan predicted a 'coming' anarchy and ungovernability while many popular books appeared predicting 'resource wars' (Starr & Stoll 1990, Bulloch and Darwish 1994, de Villiers, 1999). I will argue that (physical, political, discursive) 'closure' and its close cousin, 'enclosure' are at the heart of this narrative at the level of the project and at the level of the national and basin governance context. In the 21st century, climate change put the fear of 'water wars' back on the political map.

On the other hand, an increasingly influential 'water peace' camp made itself heard, which saw the post-Cold War period as an opportunity for reform towards environmentally sound, participatory, integrated, co-operative basin water management. Water pricing, virtual water and shared benefits are catchwords of this worldview. The state was no longer seen as the natural water manager, and security and development not necessarily its domain. The Turning of the Screw narrative proposed by Turton and Ohlsson (1999) will be presented as an exponent of this view.

At the same time, a ´counterculture´ against liberalisation and privatisation as well as large dams (Narmada, Arun) became increasingly vocal and at times successful. Taken to its extreme, it can be summarised as '*plus ça change, plus c'est la même chose*'. This is the *hydro-hegemony* thesis:

hegemony is expressed in ever more subtle forms of control over water - and over society. But hegemony as we saw is always contestable, and a global movement against the hegemony of what its opponents see as water capture has made itself felt in the past two decades. This presents a completely different take on 'water wars' (Shiva, 2001), not between countries, but between the global and the local

The question 'what happens next after the Cold War?' thus produced a trifurcation between schools of thought on scarcity and (en-)closure.

It turns out that these discourses give different meanings to what the 'politics of flood security' constitute, what 'co-operation regimes' mean and how flood management may be labelled as

- a security imperative (the water wars narrative),
- an engine for cooperation and sustainable development (the water peace narrative)
- an instrument of control and locus for contest (the water hegemony narrative).

Natural or social?

The phrase 'complex emergency' captures war and disaster, which both invite the state of exception. Given that the two are close cousins, I looked for narratives in the discipline of disaster studies as foci for flood security that would be compatible to the above three narratives. Candidates are the ´structural´, ´behavioural´ and ´vulnerability´ approach (Hilhorst, 2003, Johnson *et al.,* 2005).

The *structural* paradigm is the result of modern science, which saw the flood as a force of nature to be tamed with physical infrastructure. Rulers and their bureaucracies sought to eliminate uncertainty by calling on science and expertise, to avoid relying on the fickleness of nature and of human passions. River regulation in flood-prone or drought-prone areas easily becomes a matter of central government concern. The first centralised states developed from the perceived need to regulate rivers for collective development. Water bureaucracies ('hydrocracies'), often related with the military sector (US Corps of Engineers in the US, DSI in Turkey) would take care of civil defence against flood threats as part of homeland security. The downside of machine bureaucracies however is that they are rarely well-equipped to deal with crises; they tend to handle crises the same way as normal situations (Crozier, 1964).

Dissatisfied with the performance of flood defences, an American liberal school of human geographers (G. White, 1954, Burton, Kates and White, 1993) focused on human *behaviour* and choice. Institutional regulation (zoning) and incentives (subsidies) influences the preferences within the range of alternatives individuals have at their disposal, to make up for people's ´bounded rationality' (see also Johnson *et al.,* 2005). Collective insurance and national reinsurance complements the set of instruments.

A vulnerability approach, finally, critiqued this approach in the 1980s, arguing that disadvantaged groups in society do not have a choice, but end up in the most hazard-prone locations because of their position in the political economy (Hewitt, 1983, Blaikie *et al.,* 1994). As they identify with local actors and initiatives rather than the state, I see strong parallels with the (anti-)hegemony perspective on ´water wars´.

1.3.5   BEYOND TALK: PRACTICES OF SECURITY AND CONFLICT

So far, the discussion in this section has focussed on words, as used in speech acts, frames, stories, narratives. It has been noted with some frequency, however, that focusing on speech acts only privileges the verbal over the non-verbal. This not only ignores the power of images (M. Williams 2003), but also backgrounds the practical institutionalization of security and external conditions (Léonard, 2004, Floyd, 2007). Bigo (2002) has noted that to understand securitisation, we should not just look at the success of speech acts but at the *practices* of security professionals,

their everyday practices in the security field at the micro level, not only at the macro-level studies of political discourses[12]. While politicians and other public speakers speak (or picture) security, security experts more quietly handle the technologies of security. Securitization discourses are embedded in technology, which not only comprises instruments to implement policy decisions, but also 'shape the options available to decision-makers' (Léonard, 2004)

The present study focuses on such practices by way of *projects:* proposed technological interventions. A channel, an embankment, is planned in a cycle of situation analysis, project identification, selection of options, implementation and evaluation. At each of these stages, decisions are made and alternatives and actors in- or excluded. Unlike Bigo (2002), however, I maintain it is not only the recognised security professionals, but also their opponents who shape the discourse and practice of security with securitisations and counter-securitisation. Project-affected stakeholders can voice approval or stage vocal protest, but also more quietly display 'compliance' or 'deviance'. Depending on the protection frame's felicity with the intended audience, a major infrastructural flood management project helps or hinders the legitimacy of its initiators and objectors and the constellation (decision-making regime) in which they operate.

I reasoned that the best way of eliciting security practices is by focusing on actual river management schemes. To promote development and guarantee protection, a river scheme almost inevitably involves ´taking (someone's) space´ (River) *regulation* projects are 'sites of struggle over the definitions of uses and the boundaries of the zones which have material effects on the use and perception of space' (Bierschenk, 1988). This is notably where a flood project meets the domain of local stakeholders. Spatial planning is about ´making space´ using concepts that reflect an actor's ambitions with that space (Hagens, 2007) a 'hub', a 'park' or even a 'new civilisation', but also 'ancestral commons' (Bierschenk, 1988). In so doing, the planner meets others who have other plans for the space at issue, or resist what they see as the invasion of their space and territorial control. Projects are thus essentially contested (Bierschenk, 1988) and it is this contest that can reveal the practice of security interventions.

Public officers, but also non-state actors can use the crisis and danger vocabulary to make their claim to power or legitimacy and delegitimise others. Project-affected actors, or those speaking for them, may claim the intervention makes them more insecure rather than more secure. This can lead to negotiation and accommodation or negation, but also to an escalating crisis. The present analysis tests Lowry's interpretation of a Focusing Event as an *opportunity* for actors to promote or even impose previously impossible agendas.

1.3.6   IN SEARCH OF POLITICS

What, then, is the politics of flood security? Having defined 'flood', '(in)security', the present study treats the security arena as a special kind of 'politics'. There are a great many conceptualisations of politics, ranging from party politics to all human relations. For the purposes of the present study, I will bring together some of those strands.

Many might subscribe to Wishnick's (2005) cynical interpretation of politics: an actor's manipulation of a problem for political ends. This however is not a usual interpretation in political science, A preliminary view of politics, steeped in the Greek tradition, is what delineates the public from the private sphere. The political is what promotes the public common good (what constitutes 'the good life') in the *polis*. This normative content is reflected in the definition of politics as the 'authoritative allocation of values' (Easton, 1953). Politics is the contest over the distribution of scarce resources (Haywood, 1998) - or 'the shaping, distribution and exercise of power' (Laswell and Kaplan, 1950: 75). It is the answer to Harold Laswell's (1936) question: 'Who gets what, where, when, why and how', summarised as *cui bono* (in whose interest)?

Dye, Zeigler, and Lichter (1992) rephrase Lasswell´s question as: "who says what; in which channel, to whom, and with what effect?' Politics is *communication* - politics takes shape through

discourse, visuals and dramaturgy (staging) (Hajer, 1995, 2001). Hajer (1995: 59) defines politics as the struggle for discursive hegemony in which actors struggle to secure support for their definition of reality.

While for Buzan *et al.* (1998: 23-24), politicised means 'subject to public policy and debate'. I will follow Guzzini's (2005) wider understanding of politicisation as ´making political´, the imagination of *alternatives* which open the frame, and Mouffe (2005) in being alive to the polarising effects that, she claims, are only proper to actual political interaction. The politics of flood insecurity, then, is the contest (foreclosure and opening) over alternatives (which I will take to mean frames, actors and options) for flood management, and their distributive effects between stakeholders.

The present study takes up Buzan *et al.*'s (1998: 25) rejoinder to concentrate on *discourse* and the *political constellation* when studying the effect of a security argument, if without much guidance on how this might be done. Above, I have explained how I conceptualise the central analytical elements of the two - frames, narratives, governance and regimes. The final section of the chapter will explain in more detail how I conceived the methodology.

1.4   METHODOLOGICAL NOTES

1.4.1   *CONSTRUCTIVISM AND POSITIONING*

Following Buzan *et al.* (1998), I shall take a constructivist approach to risk and security. In constructivism there is no objective truth, only interpretation. Constructivists (Berger & Luckmann, 1991 [1966]) see the world not as something static, something that 'is', but something that 'becomes'. Change is normal, we should be on the alert if something remains the same for very long.

Because we cannot explain and validate constructions, we can only try to understand and interpret what may have been on an actor's mind (Smith and Hollis, 1990). Discourse analysis, such as securitization analysis, helps us 'disclose' what was consciously or subconsciously closed. By naming a threat, it makes explicit what was hidden, and in so doing the speaker gives us a piece of his or her mind (Miniotaite, 2000). Buzan *et al.* (1998) reminds us not to look specifically for the word 'security', but rather for 'arguments that take the rhetorical and logical form defined [by them] as security' (Buzan *et al.* 1998: 177). This is their recipe for *securitisation*:

"follow the security form, the grammar of security, and construct a plot that includes existential threat, points of no return, and a possible way out - the general grammar of security as such plus the particular dialects of the different sectors, such as talk identity in the societal sector, recognition and sovereignty in the political sector, sustainability in the environmental sector, and so on. (..). (I)t is implicitly assumed that if we talk of *this* (...), we are by definition in the area of urgency: by saying 'defence' (or in Holland, 'dikes'), one has implicitly said security and priority" (Buzan *et al.*, 1998: 27).

How does one operationalise this rather broad portrait (*signalement*) of social and linguistic felicity conditions for securitisation in the water sector and critically engage with it? As a first clue, Buzan *et al.* (1998) explicitly relate security to survival issues. 'Survival' is the point of no return, everything else will be irrelevant. Gromes and Bonacker interpret this as follows:

'Phrases (...) close to 'to be or not to be' are death, end, annihilation, extinction (...) Loss of self-determination is inflicted by notions as loss of freedom, (..), oppression (...) and proper names that refer to well-known examples' (Gromes and Bonacker, 2007).

In addition, I proposed above to relate securitisation to closure, the disallowance of contending alternatives, actors, issues that is, the delegitimisation of choice. To me (Warner, 2004), 'There Is No Alternative' (TINA) sums up the exemplar of a securitisation: it shuts out alternatives, breaks normally binding rules of engagement, such as exchange, debate and openness, that might bring in other colours.

Since no one in the security studies to my knowledge appears to have done this so far, I developed the below diagram (Fig. 1.3) which provides a provisional heuristic of the characteristics of the (ideal-typical) practice of securitised and desecuritised decision-making, compiled on the basis of the principles laid out in the literature, especially Buzan *et al.* (1998) and P. Roe (2004):

	Logic of Securitisation (' war', 'emergency')	Logic of Non-securitised Policymaking ('peace', 'routine')
Applicability	For extraordinary, urgent events	For ongoing concerns
Governance	Vertical (Top-down management, patronage in protection)	Network (co-management, negotiation among autonomous actors)
Degree of power sharing	Bypassing democracy and stakeholder participation	Stakeholder participation and influence
Role of market	Bypassing market mechanism and cost-benefit analysis	Market for security goods and services
Mode of securing compliance	Compliance through force and rules	Compliance through persuasion and marketing of security
Transparency	Secrecy, information distribution on need-to know basis, unaccountability	Openness, free exchange of information, public accountability

FIG.1.3   *Logics of securitised and non-securitised policy making, author´s interpretation of Buzan et al. (1998) and Roe (2004: 283).*

Constructivist political science maintains that political actors (individuals, groups, or states, as in International Relations) not only and not always play power games, they also puzzle, which may change actors' interest definition, therefore their compliance with a particular policy issue (Checkel, 1999) and as a result, their positioning. A constructivist approach means that actors can learn and change their perspective in interaction with others, such that it changes their role, their position with respect to those others. We can expect the definition and identity of 'who' in Laswell's question (who gets what..) as well as in van Eeten's (1997) 'stories' to be in flux rather than a static entity. Political actors develop identities in their interaction and interrelation with each other, so that they themselves can be 'changed by the distributional games in which they participate' (I. Neumann, 1999). The same actors can act as friends or enemies, as Englishmen or Europeans. Since, according to Buzan *et al.* (1998) the security speech act is an 'act' with special force, the present study zooms in on the consequences of this particular positioning. The enemy can be the flood, but also the flood manager, whose actions (or non-action) may be seen to bring insecurity rather than security. Speech acts are embedded in what Jasanoff (1999) has called 'songlines' and others storylines. Uttering a specific element from that storyline (say, Buzan et *al*'s examples of Dutch dikes), a whole story-line is effectively re-invoked that lends credence to some (security) actors and delegitimises others (cf. Hajer, 1995: 62, 67).

But security language is not cast in stone. Slocum and van Langenhove's (2003) suggestions for a positional methodology may be helpful here. Whether social interactions are conflictive or peaceful depends upon how people attribute meanings to their interactions and situation. Discourse is a fishnet-like structure of knots (objects) connected by threads (relations) (Lindahl and Sundset, 2003). An actor in the fishnet has a ´subject position´ from which (s)he sees and categorises the world, the rest of the net and positions others. Slocum and Langenhove's Positioning Triangle consists of Actors, Acts and Narratives. The Acts, such as speech acts, set in a particular setting (narrative) (re)constitute the actors in particular positions, roles, identities with respect to each other: 'leader', 'protector', 'expert', 'victims' with the help of specific lexical supports (frames, plots). In the context of the present research, it can also reconstitute the frames with respect to water: 'enemy', 'friend' or 'resource'.

By positioning oneself, one also positions others in the arena. Parties in conflict co-define each other's goals and identifies (Kriesberg, 1986). In this respect, I am inspired by van Eeten's (1997) narratological analysis of conflict on water management in the Netherlands. Van Eeten shows how flood risk stories ('fairy tales') take the same narrative form, the discourse coalitions mirror each other even though the discursive coalitions finds themselves diametrically opposed to each other: the hero of one story is the villain in the other: the former's problem is the latter's solution. Van Eeten's approach point at the embeddedness of individual speech acts in security stories, a point I will elaborate in the next Section.

Not all securitising moves are successful, not all stories are believed. Attribution of a threat does not necessarily lead to counteraction. In that case, there is security discourse, but no 'performativity'. Securitisation is a ´call and response´ between enunciator and intended audience. The authority relation between the securitizing actor and the audience may play a part, or the audience does not respond as expected, that is, does not accept the securitising move, or there is no follow-up that reproduces the discourse and translates word into action. In that case, there is no legitimation for extraordinary measures (Roe, 2004). Gromes and Bonacker (2007) therefore also identity non-securitising moves:

- denying the existence of an existential threat
- claiming the addressed audience does not possess the legitimacy to decide on the adoption of extraordinary means
- recommending the addressed audience to reject the call to 'panic politics'
- resisting the implementation of extraordinary measures

If *non*-securitisation failed, *de*securitisation is the undoing of an existing securitisation:

- not to talk (any more) about issues in terms of security to keep responses in forms that avoid vicious spirals to move security back into normal politics (Roe, 2004).

1.4.2   *CASE SELECTION*

The study involves six cases of flood-related politics in five countries. This set was not pre-selected, but evolved as I engaged with the politics of water and security (see Methodological Annex).

Allowing for considerable differences between projects and *modus operandi*, all the studies in this dissertation are concerned with national projects presented as new, innovative (non-standard) ways of dealing with flood water challenges. The first five studies concern the biggest river management project in that country in recent times (all started after 1990, but were in fact the largest since the 1960s (Fig. 1.3). In case of a composite, I chose the most recent element. A sixth study looks into the proposed revival of a flood protection measure (emergency storage) that had fallen into disuse for 50 years. Proposed emergency flood storage in the Netherlands was contrasted with that in Bangladesh.

Mitchell reminds us that flood management happens in a physical as well as a political, socio-cultural, etc. context (B. Mitchell, 1990). Any analysis of flood politics should take full cognizance of this context. For example, even though England is in the same moderate flood risk-prone category as the Netherlands (http://www.espon.eu/), and floods have claimed lives and assets, the degree of public intervention displays great difference between the two countries. The Netherlands and Bangladesh are both deltas with waterways wherever one looks, but the socio-economic and political setting is completely different.

The five countries studied are plotted in the below matrix for their variation on the two variables 'stream intervention' and 'openness of governance system' that can be plotted on the two continua introduced in 1.2.2. All selected countries can be said to be on the continuum of governance ranging from states with a 'closed' (state-dominated) to a more 'open' governance regime introduced above.[13]

The first two studies, Egypt and Turkey, based on desk research, appear 'closed systems' in terms of technical and political control, if with considerable nuances. They are states where, due to earlier interventions, flood risk is not a great challenge anymore. Egypt, commonly regarded as dependent on only one source of water, the Nile, is downstream to 9 countries, and therefore can be expected to make continued access to water a security issue. This case is contrasted with Turkey, a state that has rain as well as the geopolitical advantage of being upstream. Due to this third dimension, 'river position', The two countries can therefore be expected to take a different view of the role in national security (Fig..1.3).

The felicity of security speech depends very much on what is normal speech in a particular setting and rhetorical tradition. Security framing in the *press* is a crucial *mediator* of security speech acts (Vultee, 2007) exerting a heavy influence on whether an issue will be a security issue[14]. Wilkinson (2007: 10) notes that in non-European cultures, freedom of speech may be constrained so it may not be possible for actors to engage in security speech. Indeed Turkey and Egypt may be researched as authoritarian cultures with repressive traits. In such cases, protest may express a community perceiving an existential threat. Power holders then will label protesters as appearing a threat to the regime. Protesters will have to 'desecuritise' their opposition by stressing their allegiance to shared values (protective frame) to avoid being securitised themselves (Paltemaa and Vuori, 2006).

The four remaining case study countries concern downstreamers with riverine flood risk in 'wet' basins - the Netherlands on the Rhine and Meuse, England downstream to Wales on the Thames, and Bangladesh to Brahmaputra, Indus and Meghna. In Bangladesh, despite thousands of miles of dikes and embankments, floods invade large swathes of territory every year. Flood protection depends very much on external funds so that conditionality as regards the flood management philosophy is high. In the Netherlands, half the territory is below sea level and potential flood risk from river is large, but flood control has been so extensive that floods had been thought to be under control. The UK, finally is a country with low water intervention in which the private (insurance) rather than the public sector appears to be charged with risk management.

FIG 1.3   Case Selection Matrix.
Showing differences on three dimensions: upstream/downstream, degree of river closure and political closure

River position	Degree of River closure		
Upstream	High	Turkey	
Downstream		Egypt	Netherlands
	Low	Bangladesh	
			UK
Degree of Political closure =>	*High (Closed)*		*Low (Open)*

The study is based on extensive documentary research and, in the latter four case studies (Ch. 5-8) field visits and interviews with decision-makers and stakeholders. The field interviews were conducted in the 1999 - 2001 time window, the majority having been conducted in the year 2000. Interviewee selection was based on snowballing. But with due regard to representing the different domains of disaster management at local, national and, where relevant, donor scales.

In both documentary and interview analysis, I identified the 'lexical field' of security and risk discourse, their absolutes (unacceptables and sacrosanctities) and threat discourse (destruction, despoliation). Following Michael Williams (2003), I have taken discourse to mean both textual and visual discourse, taking due note of the staging (Hajer, 2005) of the security discourse, which enhance or defeat their felicity. Except for the Middle East cases, I visited the project sites and learned about the practicalities of planning and implementing the envisaged project. I made a systematic search of the literature. The press, but also official communication materials like press releases and newsletters play an important part as a medium in which speakers represent and construct issues in dramatic language (Vultee, 2007).

TABLE 1.2   List of case studies discussed in this book

Country	Project	Project Core	Start of project	(Projected) End of project
Egypt	New Valley Project	Toshka channel	1998	2017
Turkey	Greater Anatolia Project	Ilısu Dam (first major dam on Tigris)	2001	2009?
Bangladesh	Flood Action Plan	Compartmentalisation Pilot project (CPP)	1991	(2000)
Netherlands – Maas	Maas works	Border Meuse	1995	2015
Netherlands – Ooij	Controlled emergency flood storage	Ooij polder	2000	Aborted
UK	Integrated Catchment Management	Jubilee Channel	1999	2001

1.4.3 OTHER METHODOLOGICAL CONSIDERATIONS

Researching actors

Zooming in first on actors in an arena of conflict (and occasional co-operation), what is important about those actors? Realists will look at the material power base: in organisational terms, budget, size, staff, hardware, political base (size of constituency). This can be inferred from annual reports as well as secondary literature from watchdogs, the press etc. as well as from the interviews.

As the research is concerned with *legitimacy* as political security, material (action) as well as immaterial (expressed beliefs) elements will need to be taken into account as well, as constitutive elements of actor legitimacy. These can be inferred from how actors are described, both by themselves and by other interviewees.

In the context of strategy, it is important to know actor *goals*. Overall actor goals inform the solutions actors present to a complex problem. It will be recalled that each solution presupposes a social arrangement for its implementation in which the actor itself may or may not have a stake (take responsibility).

Centring on *technology*, as suggested by one of the research questions, makes it especially relevant to home in on the way actors communicate and interact on technological options.

In researching knowledge, expertise, information and technology as regime elements, it is relevant to research what the 'common sense' is in the regime over the *type* of information that is relevant and authoritative, and who supplies it (Haas 1992). Whose and what kind of alternatives are considered; whose information counts (lay, expert)? How do actors deal with uncertainty and ambiguity? This again points at the degree of inclusiveness. I am especially interested in the way experts deal with ambiguity and uncertainty.

Finally, the *openness* of information matters: if I want to know something, can I get access? This, in addition to *flow* (who gets what kind of information? Is the flow mainly inside out or outside in?) is a measure of the permeability of the regime to new ideas..

Interviews: A semi-ethnographic approach

Four out of the six cases draw on author's interviews, in one case (Ooij polder) carried out in co-operation with Dik Roth of Wageningen and Madelinde Winnubst of Nijmegen University.

In light of the importance of the subjective and intersubjective understandings and uses of 'security', one-to-one interviews seem are the best research methods to attain an understanding of how key actors construct security and risk, as well as a thick description of the project history. How to go about interviewing?

While there is a multitude of approaches to qualitative research, they all prefer a natural setting rather than an artificial (experimental) one (Silverman 1993). A particular strength of such a methodology lies in the potential to uncover the interviewees' own language and issue selection (...) a method of seeing through the subject's own eyes (Bryman 1988). Instead of responding to previously formulated questions, the interviewees inform the researcher of the questions they think relevant.[15]

Contrary to a positivist approach, in which researchers make great efforts to place themselves outside the researched situation and try to make themselves 'invisible', interpretative researchers seek to immerse themselves in the culture under scrutiny as well. They make themselves known and present themselves as an equal partner, so that mutual learning may take place. To facilitate this, the researcher interacts with the researched - the interview becomes a social event, which brings in social context as interview data: interviews become conversations (Bijker, pers. comm. 2000).

It turned out that interviewees will interpret the interview questions as an inquiry into the particular rather than the general. When asked questions of opinion (e.g. who is, ultimately, responsible for people's security vis-à-vis water management?) they always related it to their personal situation. Likewise, when I ask how privatisation changes the playing field, they will interpret this question as: how does privatisation impinge on the way *they* work.

Cultural anthropologists do ethnographic research seeking to understand what a (sub)culture 'is like'. While the short duration of field work prevented a full immersion in the decision-making culture ('strong ethnography'), care was taken to meet people in their own working environment and give due note to non-verbal data such as dress code and interaction with colleagues. The method can be described as semi-ethnographic: In a pure ethnographic approach, the categories used for interpreting what people say and do are not pre-given or fixed. As the research specifically sought to explore the usefulness of the Buzan *et al.*'s model, this aspect of ethnography could not be fully maintained.

It soon became apparent that *civil engineers* commanded the most prominent positions and clout among the research population. As a non-engineer, I sought to build confidence by meeting and socialising with engineers (interviewees and non-interviewees) to provide context for the interviews while seeing to it that the fact that someone had an engineering background however had no bearing on interviewee selection. This involved attending CIWEM meetings and, enjoyably, becoming a member of the KivI (the Dutch Royal Society of Engineers) philosophy group Thales (which involves many non-engineers). My subsequent work at Wageningen University and Radboud University and involvement with the London Water Research group at

University College London (SOAS and Kings' College) widened my expert network significantly, allowing me to deepen the Dutch case studies and discuss the Bangladeshi, Turkish and Egyptian cases.

Finally, allowance is made for a learning effect in the course of interviews. This does not only entail that descriptions are 'thicker' as one moves down the list of interviewees but also that the case studies themselves, while comparative in outlook, are not artificially kept 'the same'. The UK study was used as a 'pilot' and drew on sometimes quite distant memories of interviewees. The Dutch case study on the contrary was more recent and unlike the UK study, the key decision whether to go ahead with its implementation was, at least according to several interviewees, still up in the air. Also, my skills in verbatim note-taking have improved over time, so more detailed information was retained in later interviews.

Interviewee selection

Stakeholders are defined as institutional actors involved in decision-making on, supervising, implementing, monitoring the project or those directly or indirectly affected by the intervention. To limit the number of stakeholders to be taken into account, I have grouped stakeholders where possible (central government, local government, the construction industry, agricultural interests, environmental NGOs), looking for the lead actor within each group.

A second criterion for selection was, again, contest. As extensive attitudinal surveys have been carried out in both the UK and Dutch case studies, and given time limitations, I decided against randomly surveying inhabitants for their perception of the scheme. An important sub-criterion was whether the non-lead actor had brought in an alternative for action, or at least had a wider vision of the management.

The selection was done on the basis of the case literature, local press review and snowballing. Mostly, organisations and sometimes individuals obviously stood out. Also, interviewees have suggested other interviewees from other key organisations whose opinion they respected. However I have also followed my own judgement to avoid getting drawn in by a self-selecting process for the sake of convenience.

Within the selected organisations, I selected interviewees in this order of priority
- the contact mentioned in documents; or failing that
- the contact mentioned by other information providers and interviewees; if none was mentioned
- the contact mentioned by the information desk.

This rule of thumb emerged in the process as information desks proved less than valuable. Alternatively, had I relied on other interviewees only, there would have been a danger of self-selection within an in-group of people who know and trust each other, shutting out dissident views. This bias could be countered as my 'informants' included university researchers, including two of my supervisors, who could be expected to take a critical distance to the project at hand.

Also, an attempt was made to reach local people through the internet. A local Maidenhead newsgroup was contacted and yielded two responses

Roughly 60% of respondents agreed to meet me at their office or home. Among the other 40%, several immediately launched into their project story as soon as I explained the purpose of the interview on the phone. It seemed both rude and disingenuous to break off the conversation. After all some people are more comfortable on the phone than in a personal interview setting.

The interviewing procedure

The mixed-method approach to the research design is reflected in the interview design. The interview questions were in two stages. The first part was strictly non-directional. My opening gambit is to ask my interviewees to tell 'their side of the story'. I roughly indicated the main themes and let the interviewees relate whatever they liked. Open-ended questions help elicit

feeling and motives that are too complex to report in a single phrase (Selltiz et al q. in Silverman 1993). The first question therefore always was a variety on the question how the interviewee became involved in the water project. In most cases this led to an extensive story in which many of the intended subthemes were already addressed. This is an essentially nondirective question and therefore, leaves it up to the interviewee to bring in their own subjective reflection on the organisation. You end up with similar, but in some significant respects different stories, which give voice to 'communicative experience based on understanding of meaning with social actors' in line with hermeneutic (interpretative) methods. Translated in these terms, part of my research project is about *identifying alternatives* and voices. This procedure gave me the opportunity to compare accounts from different angles, a form of triangulation. I would only drop in if I felt the interview strayed too far and therefore take too much time in light of the number of other themes I wanted to discuss. I would also drop in ('Can I stop you here for a second...') if something relevant to my key research concern came up and ask to elucidate a point of small, localised adaptations based on a philosophy of 'living with the flood'.

In constructivist language, this part of the interview gauges the self-understandings of actors involved in a flood alleviation project. Indeed it turned out that interviewees will always interpret my questions, no matter how 'objectively' formulated ('What is x' instead of 'How do you feel about x') as an inquiry into the particular rather than the general. When I ask questions of opinion: who is, ultimately, responsible for people's security vis-à-vis water management, they will relate it to their personal situation. Likewise, when I ask how privatisation changes the playing field, they will interpret this question as: how does privatisation impinge on the way *they* work. So the particular tends to overrule the general.

The second part of the interview would consist of a more rigid set of questions based on the central themes, such as specific risks and opportunities, information, success criteria and influence of change (climate change and liberalisation). Whenever I came across alternative options for risk mitigation I investigated on what grounds the alternative was rejected (if at all considered).

I have noted the interview benefited if I dropped in with prompts and cue-words that reflected knowledge I acquired about water management or about recent events. I sensed this caused interviewees to take the interview more seriously and in some cases switch from a more rehearsed story to a more personal account. The comparative element, comparing schemes in different countries, substantially livened up the interview.

I have avoided sitting directly opposite the interviewee to avoid undue confrontation. The ease with which people handle confrontational questions of course varies, but in some cases I have interviewed people whose work was in the line of fire and in the few cases I would formulate a question more critically in light of something I had heard, there was a palpable cooling. Therefore I have generally taken care to phrase questions not just in terms of problems but also of opportunities and learning experiences. This took some discipline for an interviewer who has been a current affairs presenter-editor for local radio. Especially where I spotted inconsistencies between people's statements, I have tried to keep a neutral expression. When prompted for my opinion in several instances, I have sought to avoid biasing the interviewee. All this should be consistent with an 'objectivist' qualitative research method.

Drawing on 'themes' (definition of security, risk opportunities, criteria for a successful project) rather than set questions allowed me to stray from the script. Also, the 'prods' used consisted of topical information or statements from other interviewees presented as hearsay ('I've heard it suggested that...). As the setting was in many cases informal, it was possible to draw out information from guarded interviewees. Notably, many interesting things were said during coffee and lunch breaks and after the 'last question' had been fielded. While I have tended to indicate beforehand that the interview would take about 90 minutes, I sometimes deliberately stayed on

and left it to the interview to terminate the meeting, especially if people seemed eager to tell their story.[16]

Equipment and protocol: I started out using a professional Marantz cassette recorder and sensitive microphone, which I would place somewhat to the side of the table to avoid a formal media interview setting. This lasted for only a few interviews, when the impression that the equipment was a distraction became overwhelming. Thereafter I decided to take continual notes while facing the interview as much as possible, trying to give a semi-verbatim account and where physically possible taking care not to pre-edit the interview for ease of writing. This has included clearly noting where I asked my questions and prompts by means of cue-words. Where possible the report was typed up the day after the interview to benefit from the fresh memory of the interview in case the notes were somewhat incomplete.

This method had the obvious disadvantage of having to slow down fast speakers, as well as subconsciously pre-editing what the interviewees said. On the other hand, it carried the benefit of being able to carry my notepad unobtrusively around when the interviewee took me to the coffee machine or canteen, which would have been far more difficult with a recorder.

Other data An extensive press review was carried out, with input from the project office's press archive, as well as sources available from the Internet, the Lexis Nexis database, CD ROMs, policy documents, annual reports, articles sent by 'research informants' and various other sources. The interview questions both drew on and supplemented this written material. This provided a wealth of material for analysis.

Ethical considerations

<u>Reflective research</u> Social theories are stories about patterned behaviour. The storyteller has his own interests in telling the story. The old adage 'Where you sit is where you stand' has its counterpoint in 'where you sit is how you construct the story.' The stories I'm interested in here are risk and security stories: what is the threat, what is the cure and who should provide this cure?

By taking an interactive approach to interviewing, asking questions - what is security; why this option and not that – can in fact challenges the taken-for-granted. The research act in itself may change the mindset of the interviewee and thus, in its own small way, may contribute to a reflexive act, and in so doing, contribute to the desecuritisation and repoliticisation of a taboo subject..

My engagement with some actors involved in the decision-making must have altered their consciousness: my UK case study, for example, covers a 17-year period, and several interviewees asked me to help jog their memory, their reminiscences (or the sense they made of them) becoming clearer as the interview progressed. (This learning effect might cause a repetition (replication) of the research interview to have a somewhat different outcome.)

The reflexive researcher needs to take into account what effect his work may have on future decision-making. If he proposes his analysis as a type of risk management, a *problem*-solving tool, could be another technocratic tool for closing any holes that an ex-ante evaluation might show up, including neutralising opposition (political risk). If he recommends the analysis as a *procedural* tool, it may develop into the same managerial tool Environmental Impact Assessment is said to have become into the Netherlands.

That this is not so far-fetched can be inferred from a question on the part of a Rijkswaterstaat security planner who invited me (in my capacity as 'expert') to come round and discuss security issues with him and some colleagues. As the interviews progressed, my knowledge of the issue grew and my questions became more confident. This should enable me to confront some key actors with my inferences to see how they respond to them. For example, it became clear to me

(and, in some cases to my interviewees) that the project initiators' approach in both the Netherlands was a 'selling' rather than a participatory approach. It was possible to do this in a non-threatening way as some interviewees have invited me to come back in a while to continue the discussion. This seems evidence of a substantial 'rapport' in which the interviewer is seen as an equal. It is notable that this was not the outcome of all interviews!

<u>Informed consent</u> Each interviewee was informed of the purposes, the organisational context of the interview and offered the choice of being quoted anonymously or some statements to be kept off the record. No interviewee professed to have a problem with that.

Any interviewee who requested this was sent a report or a verbatim transcript of the interview. It became clear on many occasions that the interviewees did not share my interest in *how* things were said, while getting at 'the facts'. In such cases I did not send a transcript, but a report in a more impersonal style.

Sending reports can mean the respondent provides feedback, either pointing out minor errors or providing extra information. In one case, the respondent dictated his amendments, as he wanted to use the report for his own agenda. As his changes clarified rather than changed the context, I saw no reason to refuse this.

<u>Anonymity</u> From the start, each interviewee and research informant was offered the opportunity to differentiate between personal and organisational views, and between 'on' and 'off the record'. Given the critical stage of negotiations at which the Dutch interviews were carried out, almost all interviews took great pains to point out how harmful a press leak or attributed quote in front of other stakeholders could be. For some remarks I was specifically told not to write them down. Even the interviewee who said he 'couldn't care less' if I quoted him later on asked me not to quote certain statements. On the whole, respondents seemed to relish the opportunity to speak their minds but were constantly aware of the dangers of leaks to the press - or for someone to share their painstakingly collected data.

In one instance the interviewee said:

Interviewee: 'Aha, so you want to me to give you a piece of the Commission's mind!'
Interviewer: 'If you could…'
Interviewee: 'Well why not. I'm shrewd enough not to tell you the gory details.'

In light of the sensitivity for some, it has been decided not to name *any* interviewee in the present text, only refer to their type of job role and organisation at the time of interviewing.

- Positionality in Bangladesh

As a European university student I soon found I was expected to take on a position in the social order. Dhaka taxi drivers reckoned having me as a ride would allow them a shortcut across the normally off-limits military compoundment, as I was expected to take full responsibility for the itinerary of the taxi ride across town. Everywhere I went, I attracted people who wanted to be seen with me in public (as 'social capital') and quite directly voicing expectations that I would be able to improve their situation. This may have influenced their stories.

My official letter of introduction from my university clearly helped access to high-level respondents. It also provided more important than in the Netherlands to have a gatekeeper opening the door to respondents. I got hold of most of my NGO contacts with the kind help of my Dutch NGO contact, Laurens Roubos of ICCO, and several governmental contacts through an NGO contact. In some cases this may have raised undue expectations as well as anxieties about what I might report. However, I have consistently explained the anonymity of the quotes and sought to downplay any expectations raised or implied.

Early on in my research I realised the study would be mainly concerned with elites - people in power. This does not square well with the research ideology of the past decades, which has

sought to give voice to the excluded. Elite research, it is true, risks perpetuating rather than challenging current patterns of inequality. I am not the only one who faces this ideological challenge (Herod 1999). However, if the research focuses on the question why some ideas are perpetuated, a researcher will have to go and talk to those that express them to understand their rationale. My attributed position as an 'expert' representing a (technically oriented) university department gave me access I would not have had as a 'civilian'.

FHRC as an actor/stakeholder

The Flood Hazard Research Centre (FHRC) is part of the School of Social Science (Middlesex University), which funded the research into three case studies this dissertation draws on. The Centre provided me with facilities and information, and I identified myself as a Centre researcher.

A conflict of interests was always a definite possibility given the authoritative position of FHRC literature in the area of hazard studies. FHRC studies are quoted in academic research as well as policy documents. Materially, the Centre have been contracted consultants to both the Jubilee Channel on the Thames as well as an advisor to a report that forms part of the key study underlying the Dutch case study, the Meuse works, for the Commissie-Boertien (see Ch. 6 on the work of this commission).

In both cases services were rendered a considerable time before my study: 1988-1991 for the UK study, 1995 for the Dutch study. The Centre cannot be said to have an ongoing interest in the project, unlike most other actors. In the Dutch case, two Centre researchers, Prof. Edmund Penning-Rowsell and Sylvia Tapsell were present in a two-day meeting where, they report, very little was done with their input (S. Tapsell, pers. comm. 2000) and is not obvious in the report (1995). Finally, the anonymous nature of the interviews as mentioned above should safeguard the confidentiality of expressions of an independent, critical attitude, which was abundantly in evidence.

Chapter 2: Midnight at Noon?
The dispute over Toshka, Egypt[17]

'Moving to the desert is a must. There is no better way to inspire people than through a dramatic announcement. The President knows his people. Egyptians tend to join hands when they are inspired by an urgent national project' (Egyptian government official quoted in Bush 2007)

'Any step taken to this end will force us into confrontation to defend our rights and our life. Our response will be beyond anything they can imagine', War of Words and Water, *Al-Ahram* Weekly, July 6-12, 1995.

'When the emperor claims it's midnight at noon, the wise man says: behold the moon' (Omar Khayyam, *Rubaiyat*).

2.1   INTRODUCTION: CLOSING THE RIVER

Had the High Aswan Dam not blocked the river Nile, floods would have wreaked havoc in Egypt in 1975, 1988, 1998 and 1999. Now Lake Nasser, the giant reservoir behind the dam, stores surface floodwater for dry years. But in 1998, Egypt experienced an exceptional peak discharge such that even this mega-reservoir might overflow. Previously, such excess water would have been drained via a spillway straight into the desert, but the Egyptian government felt this was a waste of a precious resource. This time, therefore, when the Egyptians enjoyed an unexpected windfall of ´water wealth´, Egypt embarked on a giant desert reclamation plan, presented with much fanfare as a 'new civilisation on the Nile'. The plan is far more than an irrigation plan, though, the government hopes to house millions of Egyptians in a new city in the Western desert, creating extra space to relieve the pressure on the small strip of inhabitable Nile floodplain. The Toshka project however will require far more water than the occasional flood can provide, and in so doing has the unique feature of planning for *more* than the maximum.

In the well-known phrase of the Greek philosopher Herodotos, Egypt is the gift of the Nile, but another image comes to mind - that of a diver depending on his oxygen supply (quoted in Schiffler, 1997). This extreme dependence has inspired dozens of journalistic accounts and scientific studies of violent water conflict with upstream countries. "The Nile is a war waiting to start" (cited in MacNeill/Winsemius/Yakushiji, 1991: 56, see also e.g. Bulloch & Darwish, 1993). Despite numerous verbal attacks between riparians, these wars never happened. Blanket statements such as 'scarcity leads to war' are clearly too simplistic.

The "project of the millennium"[18] however (once more) set Egypt on a collision course with Ethiopia, which claims more Nile water for its own agrarian development. If all nine upstream Nile states were substantially to develop the waters flowing through their territory for economic development, Egypt would find itself in dire straits. Nevertheless, Ethiopia is not the only country to complain. A half century after Egyptian independence, Nile relations are still largely governed by colonial treaties concluded on behalf of Egypt by Great Britain, and the 'Full Utilization of the Nile' treaty concluded to placate Sudan in 1959. These agreements oblige the upstream riparians not to 'arrest' the flow of the Nile. In 1961, Julius Nyerere, President of what was to become Tanzania, proclaimed in the 'Nyerere Doctrine on State Succession', that he would abrogate the treaties after two years:

> As regard bilateral treaties validly concluded by the United Kingdom on behalf of the territory of Tanganyika, or validly applied or extended by the former to the territory of the latter, the Government Tanganyika is willing to continue to apply within its territory on a basis of reciprocity,

the terms of all such treaties for a period of two years from the date of independence – unless abrogated or modified earlier by mutual consent. At the expiry of that period, the Government of Tanganyika will regard such of these treaties which could not by the application of rules of customary international law be regarded as otherwise surviving, as having terminated (Quoted in Phillips *et al.*, 2006).

Still, despite many protestations to the contrary, no upstream country has seriously cancelled the colonial moratorium on upstream development on the Nile that Egypt still invokes.

Why does Egypt embark on a project that, experts argue, will claim even more water when Egypt is already approaching water and cash shortage? Are the motives domestic or do external Nile relations play a part? Are there opposing voices or is the issue depoliticised in the spirit of the oft-quoted saying from the *Rubayyat*: 'if the ruler claims it's midnight at noon, the wise man says: behold the moon'?

This chapter will argue that the scheme serves *multiple goals*, of which 'greening the desert' is only one. A parallelism between domestic and foreign policy strategies seems to lend the project an unstoppable dynamics.

The Chapter will first outline the scope of Toshka and its accompanying mega-projects in the Egyptian deserts. Thereafter, it will introduce and apply the concept of 'closure' in decision-making. As the Egyptian state is acutely aware of its vulnerability with regards to the water resource, one expects Egypt to exert tight technical control of the river, but also of its population and of its riparian neighbours. To what extent does this hold true in practice? The second half of the chapter inventories Egyptian relations with its upstream neighbours, assessing the Nile Basin Initiative as a co-operation regime. *How does Egypt ensure the compliance of its co-riparians and citizens, and what is the role of securitisation and closure in this?*

2.1.1   THE NILE: BEST FRIEND OR WORST ENEMY

"O'er Egypt's land of Memory floods are level / And they are thine, O Nile" (Shelley- *Sonnet--To the Nile)*

For five thousand years, Nile floods carried much-needed water as well as a sediment load of basalt, rich alluvial soil and silts to a dry and desert area, and flushed out the salt left behind by high evaporation in the intense heat and capillary rise in fine-grained, waterlogged soils (Murakami, 1995). In ancient times, there was a fragile balance between too much and too little. The ideal flooding height was 7-8 metres (Orient.Com). 'When the flood was too low, cultivated acreage might be halved, causing widespread famine; when the flood was too high, small-scale riverine irrigation works were destroyed and fields were swamped, also causing widespread famine' (Shapland, 1997: 60).

Egypt only needs to point at its neighbours' predicament to feel justified in building the mega dam to control excess water. In Sudan, floods continue to cause damage and to claim lives. In its capital Khartoum, where the Blue and White Nile branches meet, 1.5 - 2 million out of the 4.5 million inhabitants at the time were displaced by the flood of in 1988.[19] The 2005 floods left 1000 families homeless in Khartoum and killed 8 persons and left 2000 homeless in Darfur.[20] In Uganda, Nile floods had devastating effects in 1964 and 1998.

The other extreme, intense drought, claimed 1 million Ethiopian lives from famine in the 1980s. While disaster experts have shown that the mechanisms underlying famine are far more complex than water shortage (food scarcity can also be due to bad infrastructure and hoarding by traders, see Sen, 1981 on entitlements), this 'detail' is easily lost in the political discourse.

Egypt feels particularly vulnerable because it has few alternatives to the Nile. Since average rainfall in Egypt is only 60mm/y and it may not rain for years on end in the desert, the only significant addition to the 55.5 km^2 (= 55 billion cubic meters) coming in at Aswan these days is

the reuse of return flows from municipalities, industry and agriculture. These extremes make the river both Egypt's worst enemy and its life support. This in turn makes regulating the river Nile the central focus of Egypt's *water security* for which, Egypt is willing to sacrifice a lot. For its water security, the country uses three water strategies: *river development, groundwater development* and *rationalization* of use (Murakami, 1995). We will encounter each of those three in the course of the chapter.

To contend with the precariousness of exposure to floods and droughts, Egypt has a millennial history of advanced water regulation. Egypt and Mesopotamia are commonly bracketed together as the first 'hydraulic civilisations'. However, the 'hydraulic imperative' only became an issue in the past century, when Egypt was under foreign rule. First, Muhammad Ali, the Ottoman viceroy, connected Alexandria (Iskanderiyya) with the Nile for irrigation purposes. Then, at the turn of the 20th century, when there was a relative shortage of cotton on the world market, the Englishman William Willcocks built the first Aswan dam to ensure the Lancashire mills in Britain would be supplied with a constant supply. King Cotton also gave the impetus for the Gezira project in the Sudan and, more recently, the Ethiopian Awash irrigation project (Ward 1997: 113). The original Aswan dam, built in 1902 to trap excess autumn floods to use in the dry season[21]. Before the High Aswan Dam (Sadd el-Aali in Arabic), 'a third of the Nile water coming from Ethiopia flowed into the Mediterranean without being tapped. To gain complete control of the river, Egypt replaced the 'low' Aswan Dam in the 1960s by a huge rockfill barrage, the Aswan High Dam, and impounded Lake Nasser. Completed in 1970, the colossal storage reservoir inundated a 'land described as the cockpit of the ancient world and both the connection and the buffer between the ancient Mediterranean civilisations and the vanished high cultures of Black Africa'.[22] Historical heritage like the Abu Simbel temples, which the lake would submerge, were rebuilt 210m to the west of the original location. All temples were relocated except the monuments of Qasr Ibrim which was built on top of an 80-metre tall rock formation above the Nile's level[23]. Moreover, 50,000 Nubians were resettled in 'indifferent' government housing, and many have indicated wanting to return (ibid.)[24].

The project was paid for by the Soviet Union, to the tune of US$1 billion plus technical assistance, plus US$650 million coming from Nasser's nationalization of the Suez Canal in 1956. Regulation for storage was never the only objective for Aswan Dam – faced with rising population, vast tracts of desert land were developed in the 1960s to be irrigated with Aswan water.

In principle, the 5km long and 100m high Aswan High Dam finally secured total flood protection by stopping the floodwater altogether. When Egyptians planned the 565 km long Lake Nasser reservoir on the Sudanese border (the Sudanese side has a different name), they had not counted on its 163,000 km³ capacity to be too *small*. The upshot is unexpected excess water that needs to go somewhere – either passing through the dam into Egypt if it opens the floodgates, or allowed to backflow into Sudan, where it would cause major trouble. To make absolutely sure, between 1966 and 1978, as part of the Aswan project the Egyptians excavated a fourteen-mile canal through Khor (Bay) Toshka on the western shore of Lake Nasser, to spill any excess water into the Toshka Depression (*wadi*). As the overflow channel was completed at the start of a decade of very dry years, it remained inoperative for many years.

The Dam tided Egypt over the long spell of drought which hit Africa in the 1980s Due to heavy rains over the Blue Nile and the Atbara, which joins the Nile in Sudan, the Nile discharge in 1988 was 106 km². This heralded a return of a series of high inflows - 1994 (91.9 km³), 1996 (92.2 km³), 1998 (121 km³), and 1999 (95.2 km³). (Collins, 2003).

The 1996 flood tested the carrying capacity of the earth underneath Lake Nasser, which displayed geologic faults vulnerable to fracture from the increasing weight of the lake. Then Minister of Public Works, Radi, declared a state of emergency for Upper Egypt (Collins 2003). The inflow was so high that the dam's overflow channel had to be opened to ease the pressure

(back-flooding) on Sudan. In 1998, the waters rose even higher, and while the excess water was drained into the Toshka depression, the floodwater still affected 40 tribal houses (Reuters, 1998).

But more was yet to come. The 1 in 100 year flood of 1998, thought to be attributable to the El Niño southern oscillation, was followed by two La Niña flood years. The excess water - a total of 80 billion cubic metres of water – was again duly discharged through the spill channel into the desert. But that raised an already rising water table due to the progressive 'sealing' of the bottom of Lake Nasser, while infiltration in aquifers is very limited due to impermeable limestone underlying the Toshka depression. Four new lakes appeared in the Kiseiba-Dungul Depression[25] – the first (at 172m above sea level) in 1998, the others in 2000. A fifth lake briefly emerged to the northwest up in 2001. The lakes are subject to huge evaporation losses, however: 87% between 1998 and 2001[26]). 'Now we have salt marshes there, good for duck hunting but not much else' (Taher Muhammad Hassan cited by Wener and Bubriski 2007).

Unsurprisingly the Egyptian government prefers to use that water differently: rather than let all this precious water go to waste, it decided for a four-year spillway construction project (1998-2002) to utilise the floodwater to 'green the desert'. A new Toshka channel was constructed from 1998 to turn an exceptional inflow into a rule: it counts on a structural inflow of 300 m^3 per second into a whole new irrigation scheme. In so doing, it reverses a very old historic flow: while Wadi Toshka used to feed the Nile in ancient times, the Toshka depression will now be used to pump water in the opposite direction, aiming to 'eventually create a second branch to the River Nile in the western desert of Egypt, parallel to its prehistoric main course'.[27]

It is not hard to see wider implications for Toshka than agricultural opportunity, however. The chapter will first look into the planning history and *domestic* background to the Toshka project. Thereafter, the *external* conflict potential with nine riparians is looked into.

2.1.2 WHAT IS THE TOSHKA PROJECT? HISTORY AND ALTERNATIVE CONCEPTIONS[28]

It is not easy to define the exact scope of the Toshka project (Lonergan and Wolf, 2001: 590) – it seems to change and grow as it comes along.

> 'Part of the confusion surrounding the project relates to the lack of detailed plans for all aspects of development and implementation (...) and the lack of information provided to donor groups, potential investors, and other governments regarding specific details of the development project.' (Lonergan and Wolf, 2001: 591)

To add to the confusion, the project is also known under different names: the National Project for the Development of Upper Egypt (NPDUE), the South Valley Development Project, or South Egypt Development Project. It is best known as the Toshka project, after Wadi Toshka - although Tosca, Tushka, Tashka, Toshki, Tushcan, and Tashkan are also among the spellings used (Lonergan and Wolf, 2001).

Plans for a 'New Valley Project' date back into the 1950s when Egypt was pursuing a *groundwater development* strategy. A first version of the New Valley Project consisted of efforts to expand the abstraction from groundwater wells In 1958, the groundwork was laid for this project, and in 1959 the New Valley governorate was created. As I will discuss below, the timing, in the middle of grave water and territorial conflict with Sudan, does not seem coincidental.

The groundwater-based approach however quickly ran into problems of salinisation and loss of hydraulic head (pressure), and artesian wells stopped to flow (Murakami 1995). Water taken from the massive Nubian Sandstone aquifer, which Egypt shares with Libya, Chad and Sudan, is non-renewable. Drawing it down could not just lead to an unwelcome drop in the groundwater table but in due course also spark conflict between Egypt and its neighbour to the west, Libya (Shapland, 1997, Aramcoworld, 2007).

Faced with these early setbacks, the Egyptians redrafted the project. 'Initial project planning began in the early 1960s with a study by the Public Authority for Desert Reconstruction (PADR)' (Lonergan and Wolf, 2001). These first geological and soil surveys were followed by studies between 1971-1973 (aborted by the war with Israel) confirming that a third of the Toshka Depression would be arable if irrigated (Collins, 2003). The Planners Association proposed to extend the existing Toshka Channel beyond the depression into the western oases of the New Valley, over a 310 km stretch, to provide half the water needed – the rest still has to come from the finite, aquifers, mostly running underneath the Nile.

In 1997, construction of the Sheikh Zayyed Canal was begun. The 70km trunk canal has four 28km branches and is designed to convey 5 billion cubic meters of water a year to the New Valley Project. The canal water will have to be pumped up an average of 21 to 53m to get across the intervening section of the Nubian Plateau. The channel was shortened by half, from a planned length of 158 km to 72 km as the rest was 'not necessary' (el Din, 1999).

The late 1990s saw several floods so that the spillway could be used in the last four years of the 20th century. It captured 35% of discharge to Egypt or 20 billion cubic meters. However, in the past years there have not been excess floods. A complicating factor is that a climate change-induced variation of 10 or 20 percent in rainfall leads to 40 - 50% variation in the inflow in Lake Nasser (WL: Delft Hydraulics, 2005).'

In the meantime, the bigger picture got ever-bigger. Fig. 2.1 shows how Toshka fits into Egypt's grand plans for a 'New Civilisation'[29] in the desert:

                              North Sinai project
                              (Northern Sinai Agricultural Development Project, NSADP)
                              El Salaam channel

                    /

                                        Toshka
        'New Civilization'
                                            /
                \   Southern Valley Development Project
                                                \

                                    Al-Oweinat and New Valley Governorate Oases
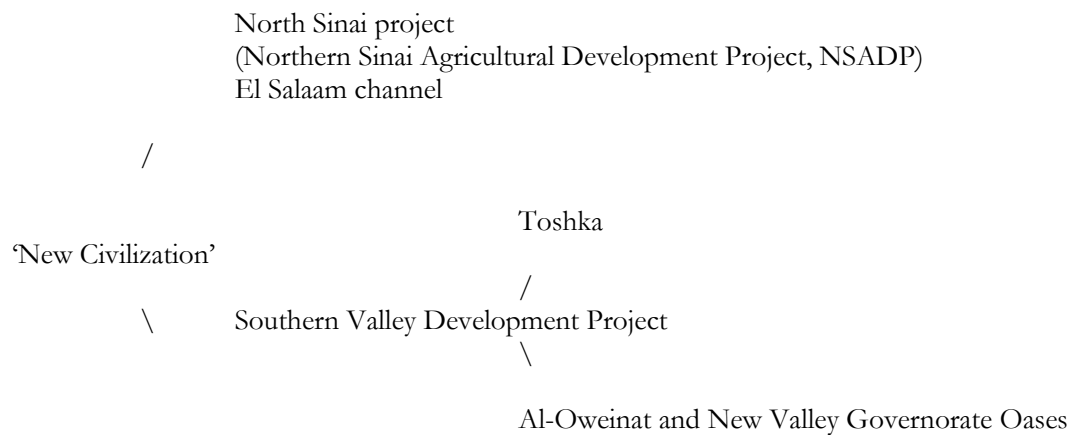
FIG. 2.1   Schematic overview of Egypt's New Civilization

The envisaged 'civilisation' consists of a Northern and a Southern valley project. The *Northern Sinai* Agricultural Development Project (NSADP), targets to resettle 750,000 Egyptians. Its core is the al-Sala(a)m Canal running from the Damietta Branch of the Nile, fifteen miles from Port Said, diving underneath the Suez Canal and emerging to irrigate 92,000 ha west of Suez and 168,000 ha of reclaimed land in the Sinai (the Suez Canal Region Development Project)[30]. In the context of the peace accords with Israel in 1979, President Sadat hinted that Nile water might be diverted to the South of Israel. The diversion of 'holy' Nile water' to the 'Zionist state' elicited strong protests from Arab Countries, but also from the Egyptian army, and after rumours of several plotted coups surfaced (Allouche, 2003), Sadat abandoned the diversion idea, but the Salam canal went ahead. An Environmental Assessment drafted for the Government of Egypt and the World Bank was suppressed in 1992 but leaked by activist el-Khodary, who is especially concerned about the Sinai project's outcome for local indigenous Bedouin[31].

The *Southern* or *New Valley* project in turn is conceived in two phases, which in turn consist of three stages. Stage 1 is the *Toshka Project* itself*,* the centrepiece of the project. It consists of the Toshka Channel and Mubarek (Mubarak) pumping station, launched on 9 January 1997,

consisting of the biggest pumping station in the world, a US$500 million, 24-pump structure near Abu Simbel, prepared by Lahmeyer of Germany and built by a consortium of Norwegian-British company Kvaerner (inlet), Hitachi of Japan (pumps) and Egypt's Arabian International Construction would draw water from a point at 147.5 meters above sea level into the canal. Asea Brown Boveri is responsible for the electrical engineering

According to original plans (Lonergan and Wolf 2001), 300 m^3/s of surface water was to be drawn from the Lake at a site upstream from the Aswan High Dam through six tunnels, each 1.5 km long, and then lifted up 56 meters via the pumping station (this requires 200 – 375 MW of power!), then through a channel into the desert. In so doing it extends the Aswan spillway westward into the Toshka depression, 'a sand-filled, dry-wash tributary of the Nile 34 kilometres north of Abu Simbel' (Vance Haynes, 1980), which takes its name from the mythical Egyptian queen Tosca. The channel resuscitates what is believed to be an old *wadi* (a seasonal river valley) which, according to feasibility studies, had served to drain water from lakes *into* the Nile in ancient times. Annually this diversion would amount to 5.5 million m^3, one tenth of Egypt's ration under the 1959 Full Utilization of the Nile agreement..

Stage 2 of the Southern Valley project, Tasha's 'sister', aims to reclaim the governorate of el-Oweinat (or Aweinat) and the oases of the New Valley governorate, if possible fed by groundwater only. The New Valley Canal is to be dug north to three oases then northwest to three more beyond the end of the 50km long, $1.2 billion Zayyed Canal (Collins, 2003).

These projects together - Toshka, Oweinat and the New Valley oases (total cost: $2 billion) - form the first phase of a $90bn package, scheduled to be finished in 2017, which would convert about half of Egypt's surface into agricultural and industrial areas. Agricultural expansion is only the basis of the comprehensive project: 'Industry, mining, alternative energy production, and possibly oil and gas production and tourism, are part of the vision, with plans for desert safaris, car rallies, conferences and medical tourism, such as sand burial for skin diseases' (Pratt, 2001).[32] '34 resorts are to be built in the Southern desert, eventually creating 10,000 jobs'.[33]

Stages two and three[34], however, have been put on hold due to financial constraints. It cannot have helped that the Toshka Lakes are receding, leaving a 'bath tub ring' of wetlands[35]. A consultant observes that the pumps, which commenced action in March 2005[36] operate only half a day per month to guarantee a minimum flow into the irrigation channels. But 2007 promised to be a high-discharge year again, the stage of Lake Nasser was so high that the Qasr Ibrim monument overlooking it was flooded (el-Aref, 2007).
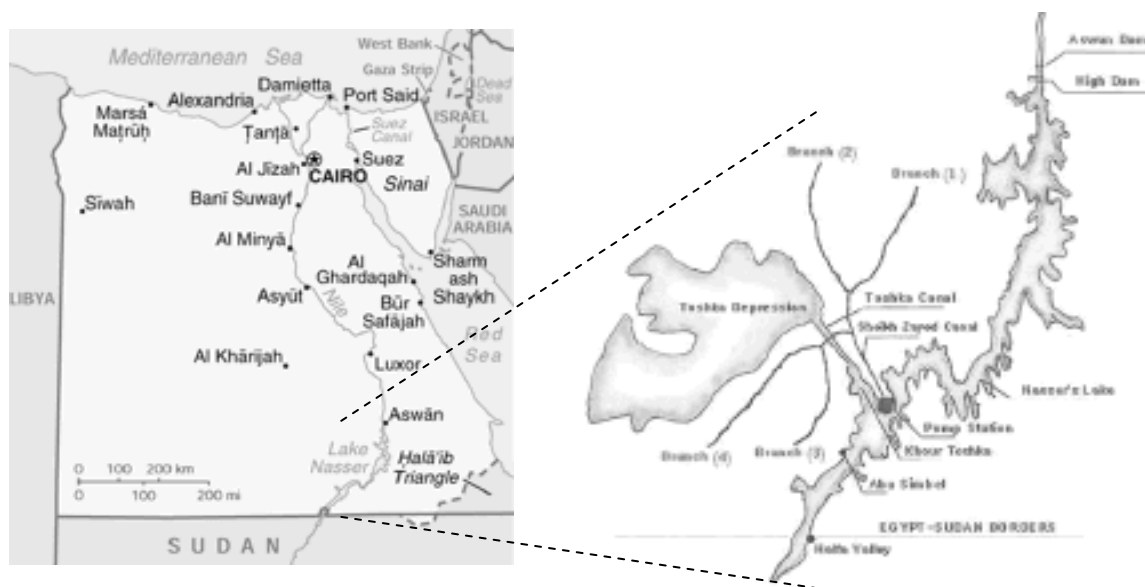

FIG. 2.2   *Location of New lakes supplied by Toshka project*
From: Wahby (2004)

Certainly, a 'second Nile'[37] is a dream many like to believe in – Sheikh al-Sayyid (Zayyed) bin-Sultan Al-Nahayan, president of the United Arab Emirates, made a US$100 million investment to enable the main cataract. The Saudi prince and maverick investor, Al-walid bin Talal bin Abdulaziz al-Saud, through his KADCO company (Kingdom Agricultural Development Company) purchased 100,000 (or 120,000 – Collins 2003) acres for a mega-farm in the New Valley to the tune of US$300 million, and contracted Sun World, a subsidiary of Cadiz of California, to help him grow cotton and watermelons, grapes, citrus, strawberries and tomatoes, many of these out of season, for export to Europe (Cowper 2000). Due to the high temperatures, four to five harvests a year would be possible. Despite the savings from drip irrigation (Collins 2003), the new firm is predicted to require 1% of the entire Egyptian water quota.[38] The world food organisation FAO has also shown great enthusiasm[39] and the Turkish GAP administration signed a collaboration agreement in 2000 labelling both the Turkish and Egyptian projects 'sustainable and integrated'.

But the project has elicited considerable scepticism as well. When a US Congress delegation visited the project in early 1998, its unpublished report concluded that KADCO, responsible for project development and management, had failed to honour its promise to make an Environmental Impact Assessment once its development plan is ready. As the ´necessary feasibility studies' had not been done, the delegation advised American companies not to invest' (Young, 1999).

International Nile experts have voiced damning criticism. Dale Whittington and John Waterbury doubt the project's sustainability even for the short run, claiming 'the Tushka canal spillway will probably never be used again' (Waterbury 1997: 279-298, fn. 2) while Tony Allan has called the project "preposterous, a national fantasy…[for Egypt] is going to have less water, not more."[40]

The experts´ criticism suggests that Egypt has embarked on a chimera. The project calls to mind the historian Donald Worster (1985)'s description of the delusions of the American West - if you settle a parched area, the water for irrigation will come in due course when you have God on your side. Similar ´magic thinking´ seems to have the Egyptian government in thrall, planning to green the desert without the necessary water.

The next Section will discuss how the state counters this criticism by securitising its water resources and its project. A securitising move seeks to realise discursive closure to legitimise extraordinary actions. With amazing political elasticity, closure on living space is given emphasis (foregrounded) while ignoring (backgrounding) physical closure with respect to water availability in legitimising the Toshka project.

2.1.3   GOVERNANCE CONTEXT: POLITICAL STRUCTURES

Egypt became a republic when General Gamal Nasser staged an army coup overthrowing King Faisal. Nasser established a nationalist-patriarchal ideology, where 'the interests of the regime (as patriarch) are identified with the nation's interests', a statist economic system, and a corporatist institutional framework. This meant the negation of the political rights of individuals and of groups like women and Copts (Pratt, 2001). After the Suez Crisis, Egypt became a socialist one-party state. Once they had the money and technology for the High Aswan Dam, the Egyptians switched back to the capitalist world. Since the 1970s, the Egyptian government has allowed a process of *infitah* (open door). Under IMF pressure, two waves of economic reforms have further liberalised the Egyptian economy, with severe repercussions on the agricultural sector.

TABLE 2.1   *Chronology of domestic and basin events on the Nile*

	Domestic developments	**Basin developments**
1953	General Nasser comes to power	
1956	Nationalisation of Suez Canal; European intervention	
1958		Coup in Sudan Start of American dam study for Ethiopia
1959	Creation of New valley Governorate	1959 Full Utilisation the Nile agreement
1960-1972	Building Aswan dam and spillway	
1961		Nyerere Doctrine defies colonial treaties
1973	*Infitah:* economic liberalisation reforms after war with Israel	
1980-1988	Lake Nasser saves Egypt from drought	Famine in Ethiopia
1981	President Sadat killed; State of Emergency pronounced	
1983		UNDUGU initiative for the Nile
1985		Discontinuation of Sudan's Jonglei project after SPLA attack
1987		Hydromet initiative for the Nile
1992		Tecconile; first Nile 2002 conference
1995	Egyptian president escapes attack in Addis Ababa	Accusations between Nile states after attack on President
1997	Construction of Zayyed Channel	Four years of abundant Nile flow
1998		Acrimony between Egypt and Ethiopia
2002	Completion of Toshka project	
2006		Basin-wide near-agreement
1017	Projected completion of Toshka project	

The governance context thus seemed to open up. However, the liberalization was offset by strict state control of food imports. State-controlled corporatist structures remained in place, giving rise to an arrangement where the Egyptian government pretends to liberalise while the business sector pretends to invest (Waterbury, 1993). State powers were extended in 1981, after the assassination of President Anwar Sadat, the *state of emergency* was declared and has not been lifted since. This allows indefinite imprisonment of opponents of state policies. According to Collins (2003), Egyptian state control has become stricter rather than looser of late:

'The monolithic regime of Egypt today and its structured bureaucracy is more reminiscent of Rameses II in the thirteenth century before Christ than the socialists and communists of the twentieth century after him. The central government of Egypt appoints its powerful provincial governors, the mayors of its 4,000 villages, those who preach in the 60,000 mosques, and the presidents of its fifteen universities. They are supported by an inflated bureaucracy encrusted through time like a Red Sea coral reef with volumes of regulations that stifle initiative, discourse, and dissent. Entangled in a legal and regulatory cobweb spun by the spiders of Arab, Turkish, French, and British rulers, a third of the Egyptian people are underpaid civil servants with security of employment that often perpetuates their officious and mediocre performance.'

Members of Parliament belonging to the Islamic Muslim Brotherhood are tolerated on an individual basis but the party remains outlawed, opposition activists were reportedly bullied and one shot dead in the last elections.[41]

In 2002 Egypt tightened the reins on NGOs, banning them from foreign funding and political activities. "'This law seeks to impose the hegemony of executive power on civil society," says Hafez Abu Saada, secretary general of the Egyptian Organization of Human Rights.[42] A rationale for this is that NGOs 'de-essentialise' Egypt as a society of multiple groups and classes. with different needs and rights (Pratt, 2001)[43], a plurality that might question the unity of the nation-state and thus promote politicisation. The state prefers avoiding any issue becoming political.[44]

The Toshka project remains non-negotiable for the Egyptian government. Irrigation Minister Abu Zayd 'ruled out any attempt to reconsider the project'[45], President Mubarak said it was 'an irreversible venture',[46] Prime Minister Kamal el-Ganzouri said: 'Raising doubts about Toshka harms the interest of the nation[47] and his successor Atef Obeid claimed in 2003: "Our commitment to success in Toshka is incontrovertible, for moving out of the Nile Valley into the desert is not only an economic necessity but a social and security issue."[48]

The depoliticisation of social issues is rooted in a long line of historic experiences. *Rebus sic stantibus*, it is unsurprising that the Toshka project has faced relatively little criticism within the political elite. The elevation of the river Nile to the national interest requires a loyalty to Egypt's water strategy that forecloses any questioning of the sense of its hydraulic projects. As an Egyptian state spokesman explained the need for the Toshka Project in Thatcherite style, ˝There is no alternative´ (*World Water Shimbun,* 2003). Is pharaonic Etatism so entrenched in Egypt that everyone involved is prepared to claim it is 'midnight at noon' because President Mubarak says it is?

A Toshka debate?

Above, we saw that projects like Toshka are depoliticised and 'securitised' as national security issues. The state's tight grip on parliament, media and society does not preclude occasional grumbles about the cost and effectiveness of the project. Rushdi Said, an Egyptian hydro-geologist, feels that the employment projections are overrated, and is quoted (in Cooperman, 1997) as warning that "(t)his project is going to employ thousands of people, not millions." Magdy Sobhy, of the al-Ahram Center for Political and Strategic Studies, criticizes the Toshka project as unrealistic because it is based on Nile flows during last year's higher-than-average flood.

Egyptian hydrologists also worry about evaporation and degradation of soils, health expert see stagnant water leading to increasing schistosomiasis (bilharzia). A full environmental impact analysis has not been made, while ecologists worry about flora and fauna of the western desert (Collins 2003) which could bring an ´environmental crisis´ (Bush 2007: 1610). Since international funding agencies have declined to fund the project, Egypt will have to raise the money alone, making some commentators fear the project would be 'sucking the lifeblood out of the economy' (Noeman, 2000).

A window of opportunity to domestic opposition to Toshka opened when in the Summer of 1998, Egypt indeed faced a *cash flow* crisis. As the cost of the Toshka project spiralled, opposition appeared to be growing to the principle and the cost of the scheme, as well as other projects such as the East of Port Said hub port project within the ministries [Shouhan, pers. comm.], in the nation's four oppositional news papers and scientific community. After President Ganzouri left office, the project's detractors in the Egyptian opposition wasted no time in denouncing the project(s) as megalomaniac and nepotistic though the oppositional press.

Both the three governmental and four oppositional papers are owned and printed by the government, so that it has full control. Still, this is relative: Napoli and Amin (1997) call Egypt's press the most liberal in the Middle East in the sense that many things can be said if certain lines are not crossed. The Toshka project is an interesting example of this.

In 1999 Abbas Al-Tarabili, the editor of the Wafd opposition party's eponymous newspaper published two-front page editorials claiming that insufficient feasibility studies had been carried

out for the Toshka project, that the terrain is much harsher than expected (with granite and an unforeseen depression) causing the project to fall behind schedule, and that project implementation is 'rife with (financial) irregularities'. The Irrigation Minister, Abu Zayd, denied all problems while President el-Ganzouri government decried the 'hostile campaign' as directed against the national interest (el Din, 1999). Zakaria Azmi, chief of the presidential staff, requested a series of hearings.[49] On 6 April 2006, the Egyptian Parliament again discussed Toshka, as Members of Parliament tabled memoranda on corruption, arguing the plots had been sold way too cheaply. The Muslim Brotherhood's Health Commission Deputy El-Shaer called Tushka a 'nightmare' that failed to meet any of its objectives. Al-Ahram reports every year there are complaints that New Valley areas do not receive enough irrigation water.[50] Within government there appeared some fission too. By February 2006 the Minister of Irrigation announced that just 23,000 feddans had been brought into cultivation. Minister Abu Zayd disputed the figures, claiming the project had already met 85% of its targets.[51]

The cost issue is particularly painful because the project banks on private capital to supplement a maximum 25% public investment. However, foreign direct investment was falling in the 1990s from $2.5bn to 1bn in 2000. Egypt further liberalised its investment policies to find the money needed to supplement funding for the New Valley project, Egypt's Law No. 8 of 1997 *deregulated* investment and offered tax breaks.

In the New Valley, the state has a hands-off policy. While a minor percentage is held back for smallholders and graduates, to attract investors for the scheme it has been decreed that private enterprises cannot be nationalised or expropriated. Thus, the public sector cannot interfere with management practices and firms can import whatever they like.

Nonetheless Flemings, an international credit bank, downgraded Egypt as its economy is groaning under a host of punishing projects, of which Toshka is only one (Cowper, 2000). 'Opposition politicians, banks and development specialists have attacked them [the mega projects] for being grandiose, impractical and a severe drain on limited government resources' (Cowper, 2000).

TABLE 2.2 Water Resource Use in Egypt, 2002/03

Water sources	Mln m^3 /year	Uses	Share in total use
- Nile Water	55.5	Agriculture	85.0%
- Rain and floods water	1.0	Industry	9.5%
- Subterranean water (Valley and Delta)	6.5	Potable water	5.5%
- Deep subterranean water in New Valley, Oases and Sinai	1.0		
- Agricultural drainage water	5.0		
- Recycled agricultural drainage water	0.7		
Total	69.7		100.0%

Source: Egyptian State Information Service, www.sis.gov.eg/En/Publications/226/538/541/544.htm

So, where will the water for Toshka come from?

In Section 2.1, we have seen that Toshka project depends on infrequent floodwater and non-renewable groundwater (Fig. 2.2). It is notable that 55.5 billion m^3/year at current population figures is about 800 m^3/y per capita. If this were Egypt's only source of water, the country would be severely water stressed.

Where will Egypt find the 5-10 billion m^3 extra water needed to complete the project?

Could Egypt diversify? Egypt does have desalination plants near Hurghada on the Red Sea coast and Marsa Matruh on the Mediterranean. Desalination is still costly and relatively small-scale in terms of yield. Egypt has so far not used much of its *groundwater* resources, but will draw on those a great deal more (Hvidt, 1995).

Of course, Egyptian water managers know that the Aswan High Dam and Lake Nasser may have tided Egypt over the extreme droughts of 1979-88, but that in 1988 the water level in the reservoir reached a critical low (150m) endangering electricity generation (2.1 million kW annually) by its 12 generators. The state therefore seeks to diminish its dependence on hydropower from Lake Nasser, which takes care of 50% of the country's energy supply[52] and is using its oil and gas supplies. A dramatic *rationalisation* programme has been started aiming for a less water-intensive type of agriculture, notably cuts in rice and cane sugar, improved drainage, stepped-up recycling efforts to reuse reclaimed wastewater, and levelling of arable land slow down the level of evaporation - though plans for night-time irrigation have met with resistance from farmers. After all, out of the 85% taken by the agricultural sector, a high percentage is lost because of inefficient sheet irrigation practised by the *fellahin* (peasants and labourers, from Arabic *fellah*: ploughman or tiller). Hi-tech solutions such as drip irrigation and even better Nilometers are envisaged. There are plans to store water in the Lakes Manzal and Barlus on the Mediterranean coast, to repair leaky pipes and line ditches (Cooperman, 1997). Egypt will economise, recycle, and modernise its way out - and save, according to Abdelrahman Salabi, water policy advisor to Minister Abu-Zayd, 20 billion cubic metres[53]. Users of Toshka water however are not expected to have to pay for it, though, so conservation is unlikely to happen there.

Clearly, these measures are technocratic efficiency boosters, not structural measures. Like many of its neighbours, Egypt has officially not really begun to contemplate the kind of 'demand management' all water-poor states will eventually have to accept.

However often sections of the academic community (e.g. Gleick, 1993) may sound alarms about water shortages in the region, the Egyptian state has different ideas. 'The idea that there should be a water shortage is absurd', says a Ministry of Public Works and Water Resources expert[54].

2.1.4   *NOT ENOUGH WATER; NOT ENOUGH SPACE?*

Is Egypt overpopulated?

It is tempting to see the New Valley as 'Mubarak's pyramid', a prestigious French-style *grand travai*' - a lasting memory of his presidency to follow in the footsteps of his predecessors General Nasser (the High Aswan dam) and Anwar Sadat (Abu Simbel) and his neighbour, president Muammar Ghadhafi of Libya (the Man-made river).

But its advocates claim there is an urgent practical reason for the mega-project. A major legitimiser of the New Valley project is the supposed overpopulation on a narrow strip of land. According to Cowper, referring to Toshka, '(f)ear of a demographic and food security time-bomb lies at the heart of the argument in favour of two of the most controversial mega-projects' (Cowper, 2000). The project's advocates claim it seeks to create some *space* to prevent social tensions as a consequence of demographic pressure on a tiny strip of land. Each year, some

20,000 ha are lost due to urbanisation. Just 5% of Egypt's territory (an area the size of Switzerland) is inhabited by some 63 million Egyptians. In 2017, this number will have grown to 140 million. The Egyptian 'decentralisation policy' has resettled several hundreds of thousands of Egyptians and seeks to resettle millions more (Lonergan and Wolf 2001). Thus the new project would not only put 250,000ha of land into production but also enable 5 to 7 million Egyptians to move into the New Valley within the next two decades[55] – though Lonergan and Wolf (2001) note that the size of the Egyptian population will have increased by five times that number by then. The project would quadruple Egypt's inhabited space[56] so that land occupation would rise to 25%.

On the other hand, we should not be taken in by the word 'overpopulated' - while we should not necessarily reach for a revolver when we hear it, as Susan George of the Transnational Institute has it (in Mitchell, 1995: 131), it is wise to reach for the calculator. Egypt is still less densely populated than Belgium, and on its arable area produces three times as much crop per hectare as Bangladesh (Mitchell, 1995). Mitchell's (1995) analysis of World Bank documents shows that the portrayal of Egypt as a space-constrained country in need of development is an unfounded case of 'spin'.

Even if we accept the *Lebensraum* argument were valid, will 5 million Egyptians move into the desert – 3 million to the South-western Desert and 2 million to the Sinai? 'Historically, Egyptians resist moving from their homes to new settlements in the desert, and the Toshka Project is no exception.' (Wahby, 2004: 90) So far only 15,000 live there[57]

Is Egypt in a food crisis?

As for the other argument for the desert reclamation projects – the 'food security time-bomb', thinking also seems muddled or selective. Food self-sufficiency is an important policy goal and Toshka is part of 'horizontal agricultural extension' to achieve it.[58] Egypt has not been self-sufficient in food since the 1970s, this deficit is more than made up for by the global food market. But the new crops are mainly horticultural crops for export purposes.

Tony Allan (1997) has given an influential explanation of the workings of a political taboo. The autocratic technology-driven leadership Egypt has traditionally practised makes it hard to garner societal support and legitimacy for a change of mindset toward demand management. This adaptation would take money as well as goodwill and adaptability on the part of the population. The only regional state to have started such a process was Israel in the early 1990s (Allan, 1997). But in Egypt, the dream of 'water sufficiency' is alive and well while Egypt's *fellahin* 'adapt' by abandoning the land. Despite increasing 'water poverty' (Ramadan, n.d.), the notion of water scarcity remains undebatable. This is made possible by backgrounding an ever greater reliance on 'virtual water'.

If you stop exporting water-intensive agricultural products (*encapsulated water*) and take full advantage of low international wheat prices a huge percentage of irrigational demand is avoided. By switching from food export to food import Egypt saved billions of m^3 of premium water. Food constitutes 10.8 per cent of Egypt's total imports bill (OECD, 2004/2005). Thanks to American food aid and the availability of cheap grain on the world market Egypt became less and less dependent on its own water. This way, a silent revolution realised economic adaptation which spares the government an embarrassing political debate on the question whether the state is accountable for a looming water shortage.[59]

Up to the 1970s, it was possible for the Middle East to augment the water supply by finding or mobilising new resources to ensure food self-sufficiency. Since around 1972, Egypt switched to importing, which means importing encapsulated water. Nowadays, imports meet half Egypt's food requirements, and '(m)ore water 'flows' into the Middle East each year as 'virtual water' than flows down the Nile into Egypt for agriculture' (Allan, 1997).

This dependence on food imports evidences a national economic vulnerability (dependence on the rest of the world) that Egyptian officials prefer to keep politically silent. Egyptian water professionals, who are quite well represented in the international water community[60], have not wanted to discuss virtual water for many years and – it seems - kept it off the agenda where they could.

Apart from its political silence, there is another advantage to a virtual-water strategy. As Alan Richards and John Waterbury (1990) have noted in passing, food imports have proved an ideal control mechanism - it is easier to control the distribution of imported food than of food produced by millions of *fellahin* (small farmers) in the countryside. In 1977 the Egyptian government cut subsidies, which doubled the prices of food in the cities 'bread riots' broke out after draconian price rises following IMF-imposed structural adjustments. Egypt's geography allows all food imports to come in at a central location (sea port) and distributed for food coupons to the urban poor, thus preventing future riots. Like Aswan High Dam, this creates what Callon would call an obligatory passage point (Callon, 1987). In this respect, virtual water can also play a role in maintaining state control.

A (not-so-)silent revolution?

What Allan (2001 and elsewhere) has repeatedly described as the 'economically invisible and politically silent revolution' of virtual water has propelled an economic adaptation process that spares the government an embarrassing political debate on the question whether the state is accountable for a looming water shortage and dependency on the rest of the world that Egyptian officials prefer to keep silent about. But how silent is this revolution in the countryside?

In that context, a prescription that Egypt should turn to the world market to import virtual water more is anathema. When Beyene and Wadley (2004) discuss this as an option, they voice concern that the market mechanism does 'not account for the different social meanings attributed to water across state boundaries. (…) It is hard to predict … how far the Egyptian farmers are ready to buy the idea of detaching themselves from producing agricultural products, should the Egyptian government agree to implement the "virtual water" scheme.' (Beyene and Wadley, 2004).

But what seems to have escaped Beyene and Wadley is that, in fact, Egyptian food producers – whether they 'buy' the idea or not- have already been adjusting to a virtual strategy for the last 30-35 years.

The *fellahin* are a powerful symbol for Egypt, and when Gamal Abdel Nasser came to power, he sought a political support base in the countryside by pushing for land reform. This reform proceeded only haltingly, sustaining absentee landownership, but the overall effect of land redistribution and collectivisation of the agricultural sector was to create a clientele for the state, which had nurtured a class of small-time farmers (*fellahin*) and guaranteed a good price for their corn and cotton (Weinbaum, 1982. See also: Beblawi and Luciani, 1987). Egyptian irrigation is still heavily subsidised – Kagwanja quotes a $5 billion per year figure (Kagwanja 2007).

As a consequence, the first wave of economic liberalisation initially progressed only slowly. But after the 1977 food riots, the Egyptian state responded by a policy of subsidies and social welfare programs for the urban electorate - combining welfare and developmental roles (Abdelazim, 2002), in such a way the infrastructural links with and investments in the countryside were neglected. Imported food brought wealth to harbours, not to farmers so that farmers' bargaining power was eroded, leading to further marginalisation.

In a second IMF-impelled wave of reforms, Egypt liberalised its agrarian policies, abandoning fixed supply and price support in wheat and maize from 1987. After the Land Law (No. 96 of 1992) previous subsidies on farming inputs were cut. This subsidy cut was especially meaningful since disappearance of fertile sediment from the Nile due to the Aswan Dam, 99% of which is now trapped in lake Nasser, had to be replaced by chemical fertiliser. Even worse, land tenure

was reformed: over a five-years' period, tenants had to return their land to the landowners. They had rented this land for 40 years at fixed rates; now the rents were allowed to skyrocket. Evicted farming families have resisted the police, which has given rise to a ´silent civil war´ in the Egyptian South: widespread violence in the countryside has been reported due to police-assisted evictions of tenants. The inevitable outcome was for tenants to swell the shantytowns of Cairo (Bush 2004, 2005; see also OMCT, 2006) and, who knows, Toshka - had they only been notified at all of the possibility and the very short time window) very different farming methods and start costs (Hill, 2000: 23, 29).

The virtual water (import) strategy thus appears to have supported urban political control while widening the socio-economic gap between mega-city and countryside. Egypt is a semi-*rentier state* (Beblawi and Luciani 1987), developing with easily obtained income from running the Suez Canal, oil production, Western aid, remittances and tourism. Relying on external rents and a 'bubble economy' (Mitchell, 2002) Egypt now seeks to attract foreign investment in projects like the New Valley to generate foreign currency from horticulture and cotton. But rather than attracting farmers to produce food, the state appears to gamble on ´rural development without farmers´ (Bush 2005). New Valley plots are rather larger than those made available in earlier development projects such as 1 to 2.5 acre plots at Nourabayya in the 1980s. A 100,000-acre plot was sold to Saudi Prince al-Walid Ibn Talal al-Abdulaziz. But despite the tax breaks, Toshka only attracted one significant investor:

> [Sun World] was to invest no money of its own in the Toshka project... In the excitement of the government's announcement that the project had found an American partner, the reason for this went unnoticed: Sun World had no money. (T. Mitchell q. In Bush, 2007)

The Muslim Brotherhood MPs have taken the Egyptian state to task for not having sold land on the market but directly awarding it to KAC while preaching market liberalisation.

In the Egyptian welfare state, taxation remains low, urban subsidies are high, state control of the economy remains considerable while leaving farmers to their own devices. Beblawi and Luciani have argued, and Dorman confirmed for Egypt, that *rentier* states like Egypt can exempt themselves from the need to develop strong state–society relations. The state exerts control, but it is not ingrained: it can rely on continuing patronage relations. It tolerates a huge informal economy - Dorman (2007) maintains the whole Cairian economy is informal. The state may be everywhere, but it can be co-opted and subverted by locals. While open discontent in the streets is stamped down, hidden deviance is tolerated: if you do not visibly avoid the law, you are not branded an 'outlaw'. People retain their rights in a political sense if they keep their heads down (Dorman 2007).

An alternative explanation

We have thus seen that 'closure' is an elastic discourse strategy – Egypt's space and food insecurity, which are contestable, can be invoked to legitimise a project, while water closure (shortage) cannot, because it is a carefully maintained taboo. The project makes neither hydrological nor economic sense. At the time of writing, the Ministry of Agriculture appears to ´behold the moon´, labelling Toshka a model of agricultural investment (State Information Service, 2007). But Toshka is not related with the Ministry of Water Resources or even the Ministry of Agriculture; it is a Presidential project (Egypt State Information Service, 2007). Modern Egyptian rulers continue to have a taste for building pyramids. It may serve a political goal, as a symbol for state prowess - not by the ancient mode of exploiting the population - but neither by creating a bustling investment market.

The role of the army may be a clue here. Since Sadat's assassination in 1981 Egypt has been under a state of emergency. The President is head of the army and relies on their support, knowing that the forces can be a danger: in 1985 the Central Security services plotted a failed

coup. In the 1990s, the army's budget has been cut, but at the same time its mandate has been expanded.

According to both Frisch (2001) and Dorman (2007: 209) the Egyptian army is heavily involved in the business of 'butter'; not just 'guns'. Quite literally so: the mandate extends to 'basic needs like agriculture, irrigation and land reclamation'. Armies got monopolies in non-military sectors like agro-industry in the new development schemes. Given the scarcity of land, the Army profited from sale of military terrains and the development of new lands. The army is heavily involved in the agro-industry on land reclaimed by the al-Salam canal and Toshka, for which the military in responsible for planning, canal construction and earth removal; giving water to nomads and educating Upper Egypt' (Frisch, 2001). This raises the alternative hypothesis that Toshka provides self-sustaining income for an army that sees its budget cut.

Moreover, the location of the project so close to the Sudanese border does not seem accidental. The importance of a desert development project with questionable economic prospects to national *security* makes more sense from the perspective of controlling border areas: the Sudan for the Southern Valley project, and likewise areas close to Israel in the Northern Sinai project. This brings in a foreign policy (geopolitical) angle on the Toshka story. For a broader perspective, we thus have to look at Egypt's external affairs.

An international approach can also shed more light on the heated response of, especially Egypt, to the Toshka project. If Egypt is no longer an agriculturally-based society, as Selby (2005) observes, it could afford to grant some water to upstream countries. However, the signs do not evidence this. To help us understand how Egypt manages to prevent sharing much, the remainder of the chapter will first look into the international overlay of Nile politics.

2.2   EXTERNAL HYDROPOLITICS

"The Nile is Egypt's lifeline, so it can't accept any decline or decrease of water," says Ahmed El-Naggar of the Al-Ahram Centre for Political and Strategic Studies in Cairo. "Each country has water rights, but if any country takes more than its rights, Egypt will not forgive it."- *Sudan Tribune*, 16 February 2004.

"Any action that would endanger the waters of the Blue Nile will be faced with a firm reaction on the part of Egypt, even if that action should lead to war." (former Pres. Anwar Sadat, cited in Kendie 1999).

"The Egyptians treated the waters of the Nile as though they were a purely Egyptian affair rather than one concerning all states in the basin (…) And they created facts on the ground that make matters very difficult for the future. Hence, we felt we had entered into a game stupidly. We were talking about sharing resources, while the Egyptians were making that impossible in future. Therefore continuing with the technical talks became, quite simply, a waste of time." (Ethiopian President, Meles Zenawi in 1999) [61]

2.2.1   INTERNATIONAL OVERLAY

The position of Egypt in the international system remains important, and as a consequence, so does the overlay of global geopolitics. The Aswan Dam, for example, would not have been possible without the Cold War. Although Nasser won the stand-off with Britain and France over Suez in 1956, it proved a Pyrrhic victory as it nearly bankrupted Egypt when the West responded with a crippling economic boycott. General Nasser still wanted his dam and in 1959 the Soviet Union stepped in, willing and able to supply the money and technology. Six years on, USSR president Khrushchev was present at the High Dam's inauguration.[62] Once the Aswan high dam had become operative – it came fully on stream in 1970 - Egypt returned to the capitalist camp

and started very carefully to liberalise its economy: the 'open door' (*infitah*) policy. The return to the West seems to have been inspired by both economic as well as political motives.

When Egypt was defeated in the 1967 war against Israel, the country also lost some of its international prestige. The Gulf states' oil boycott in 1973, as bold a move as Egypt's nationalisation of the Suez canal, stole Egypt's thunder. On the back of its newly-found riches Saudi Arabia became the new regional leader. Peace with Israel in 1979 (the Camp David agreement) won President Sadat a Nobel prize but lost his country even more Arab credibility. During the Camp David talks it was also proposed to divert 1% of the Nile influx, some 500 million m^3 annually, to the densely populated, heavily saline Gaza strip – the al-Salaam canal running into the Sinai as part of the above-mentioned *Northern Valley* project (see above) would not have to be extended by much to reach Rafah, on the Egyptian-Israeli border. The peace move made Egypt an outcast among its Arab friends but had other dividends: while Arab development aid dried up, Egypt soon became a top-three recipient of American aid.

There were limits however to the degree Egypt was prepared to alienate the Arab world. After President Sadat was killed, relations with Israel became tenser under Mubarak, and his Water Minister, Abu Zayd, let it be known that Egypt is not going to be made to supply Israel with water.[63] As expected, relations with the Arab states and Iran improved as a result.

Of course Egypt continues to keep a keen eye on the remunerative relation with the U.S., of which it is still a major recipient while Egypt remains a cornerstone of U.S. policy to moderate the Middle East. When Egypt joined the Allied forces and even sent soldiers to fight in the Gulf war of 1990-91, US$7.5 billion of its debt burden was scrapped while Sudan, which had sided with Saddam, was punished. But now that America no longer gives Egypt food aid, the spending strategy will only work with the help of oil exports (Egypt is a member of the Organisation of Arab Oil Producing States, OAPEC), and/or extensive foreign support (Beblawi and Luciani, 1987).

2.2.2   CONFLICT OR COOPERATION?

In water literature, a sometimes unhelpful distinction is frequently made between conflict and co-operation between states.[64] When one state is significantly stronger than the others, the way states 'co-operate' with each other may be suspiciously like the way a detainee ´co-operates´ with his captors. Conversely, 'conflict' sometimes looks like a staged theatrical act to get outside attention and funding. A cursory glance at the Nile basin reveals a coexistence of professed co-operation and professed conflict, which highlights that both 'conflict' and 'cooperation' are political discourses, constructed for specific audiences (Mirumachi and Warner, forthcoming). Egypt has made threats to upstreamers, several riparians have made angry noises since independence; news that the Nile riparians were close to signing a Nile agreement in early 2007 therefore generated considerable international excitement – but at the time of writing of this chapter, the agreement still seemed outstanding. The below sketches a background to these 'signs' and seeks to explain them in the context of Egypt's role in the Nile community.

The upstream Nile riparians profess to be far from happy with the status quo on the Nile. As the last port of call before the Nile reaches the Mediterranean Egypt depends on what the upper riparians leave. It seems daring - if not foolhardy – for Egypt to claim even more water.

The next few paragraphs will analyse Egypt's relationships with upstream countries Ethiopia (2.2.3), Sudan (2.2.4) and Uganda, Kenya and Tanzania (2.2.5). Ethiopian opposition to the Toshka project will be discussed in the context of upstream resistance to Egypt's insistence on upholding colonial treaties. But also relations with Sudan, which Egypt needs on its side to get a greater share of the Nile, are highly volatile, while three East African upstreamers, Kenya, Uganda and Tanzania, have become more assertive. The below Sections go into Nilotic conflict and cooperation.

TABLE 2.3   *Area of the states of the Nile Basin (FAO, 1997)*

Country	Total area of the country	Area of the country within the basin	As % of total area of basin	As % of total area of country
	(km²)	(km²)	(%)	(%)
Burundi	27 834	13 260	0.4	47.6
Rwanda	26 340	19 876	0.6	75.5
Tanzania	945 090	84 200	2.7	8.9
Kenya	580 370	46 229	1.5	8.0
Zaire	2 344 860	22 143	0.7	0.9
Uganda	235 880	231 366	7.4	98.1
Ethiopia	1 100 010	365 117	11.7	33.2
Eritrea	121 890	24 921	0.8	20.4
Sudan	2 505 810	1 978 506	63.6	79.0
Egypt	1 001 450	326 751	10.5	32.6
Nile basin		3 112 369	100.0	

2.2.3   ACRIMONY WITH ETHIOPIA

A bewildering historic heritage helps Egypt to keep its nine neighbours - Kenya, Tanzania, Burundi, Rwanda, Zaire, Uganda, Ethiopia, Eritrea, Sudan - in check; the Nile catchment extends way down to Burundi in Central-Africa and to Eritrea in the Horn. It does so on the basis of colonial treaties, economic and, if need be, military dominance. Out of these, Ethiopia has the biggest claim by far on the Nile. The Ethiopian Highlands are the primary source, of the Blue Nile, contributing 76% to the annual flow of the Blue Nile – during the flood period Ethiopian sources even provide 95% of the flow of the Blue Nile, and 50% of the White Nile through the Machar marsh and Sobat river (Haynes and Whittington, 1981)[65].

Egypt's dependence on Europe and France started in 1879 with Egypt's bankruptcy in 1879, after a failed campaign of Khedive Ismail to conquer Ethiopia and make the Nile an Egyptian river[66]. In 1902, still in the colonial age, England (on behalf of Egypt and Sudan) concluded a treaty with Italy (on behalf of Ethiopian King Menelik II) stipulating that any upstream 'arrest' of the waters would not be permissible. The English sought to secure the continued production of cotton for its Lancashire mills. Almost a century down the road, Egypt still stands by this document. Ethiopia, unsurprisingly, is piqued by the situation, as they thwart its development plans. Like Kenya and the Belgian Congo, Ethiopia was not a party to the Nile treaty of 1959 - and has refused to accept it. The treaty allocated what has become a 'non-negotiable' (Collins 2003) 55 1/2 km^3 a year to Egypt, 18½ to Sudan, which theoretically left something over 10 million m^3 for all other riparians, given the average 84 km^3 measured (on average) at Aswan annually. Ethiopia has never lodged a formal complaint about the distribution agreement,[67] but is well aware of its upstream position. Kendie (1999) cites an early instance of linkage politics in the 14th century when the Negus of Ethiopia threatened to retaliate by diverting the Nile if Egypt did not refrain from persecuting its Christian (Coptic) minority. Still, Ethiopia's interest in seriously developing the Nile materialised as recently as 1956 when Emperor Haileselassie established the Ministry of Public Works, recast in 1971 as the National Water Resources Commission.

According to Collins (2003) this agency and its offspring such as the Valley Agricultural Development Authority, lacked sufficient technological knowledge. Only in 1990 a *Preliminary Water Resources Development Master Plan* (PWRD) was drawn up. However, the overlay of the Cold War encouraged external drafts in support of Ethiopian water plans. By 1959, Egypt had joined the socialist bloc, cemented by financial and technical aid for the High Aswan Dam from the
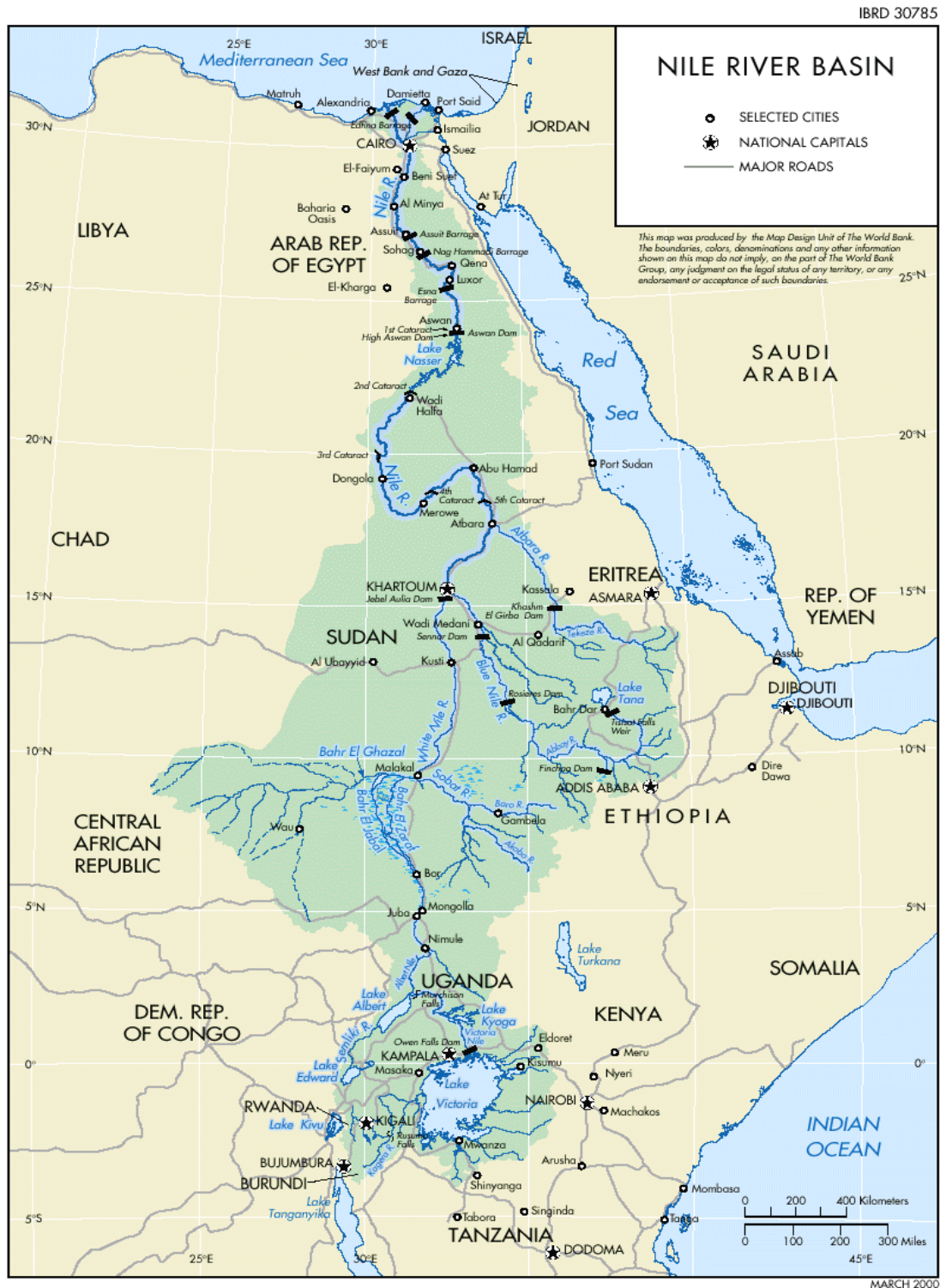
FIG. 2.3   *Nile River Basin.* www.nilebasin.org/nilemap.htm

Soviet-Union. In retaliation, the West, annoyed over the loss of a strategic ally, decided to support upstream Ethiopia. In the early 1960s the U.S. Bureau of Reclamation advised the Ethiopian emperor on the development of the Blue Nile.

Between 1958 and 1963 a comprehensive plan for 33 dams (the Blue Nile Development Plan, to irrigate 434,000 ha) was developed for the Emperor by the US Bureau of Reclamation, to be funded with a loan from the African Development Bank. 'During the next decade the French

reported on the Blue Nile, the Italians on the Beles, and the Dutch on the Tekeze' (= Atbara) (Collins 2003). These plans were never realised - while Egypt returned to the Western camp, Ethiopia joined the Soviet sphere losing the loan. During Mengistu's reign of terror a shouting match erupted over the Nile between Egypt and Ethiopia. A minor diversion by Ethiopia of waters of the Blue Nile and the Sobat River in the late 1970s triggered threats from President Anwar Sadat of Egypt and Minister of State Boutros-Ghali, Egypt warned Addis that it was prepared to declare any Ethiopian water diversions a *casus belli*, a reason to go to war (Phillips *et al.*, 2006). Mengistu defiantly responded that the Nile was Ethiopian heritage.

After the Mengistu dictatorship was deposed in 1991, relations between Ethiopia and Egypt warmed significantly. Egypt concluded a non-binding general agreement on cooperation and use of the Nile with Ethiopia on 1 July 1993, but no quota. But Ethiopia was clearly 'not amused' by Egypt's announcement of the Toshka scheme in 1997. In 1998 Ethiopian Minister Seyoum Mesfin wrote a protest letter with copies to Salim Ahmed Salim, Secretary General of the OAU, Kofi Annan, then his counterpart at the UN, and James Wolfensohn, the president of the World Bank at the time, saying Ethiopia will not accept its water share to be affected by the Toshka project. But the Bank is not funding Toshka, so it cannot veto it. Ethiopia, on the contrary, is too destitute to build big dams unassisted. As the lending institute will not fund regionally controversial projects. This has effectively stopped international donations to Ethiopian projects of any significance.[68] So in practice it is Egyptians who find the World Bank uncritically on their side. As Tony Allan has often claimed, the World Bank may need Egypt more than Egypt needs the World Bank – to the extent that the Bank, too, appears to think it wise to ´behold the moon´. All in all, the treaties and threats effectively boil down to a veto on upstream water resource development.

How can downstream use affect upstream rights? Under 'equitable use' principles, Egypt would need to share its surplus with upper riparians in periods of slack. Further Egyptian reliance on virtual water could create such slack (Waterbury, 2002: 87). Both countries accuse the other of seeking to strengthen its hand in the negotiations by diverting water, which could later count as 'prior use'.

In response, an increasingly self-confident Ethiopia called for the revision of the 1959 treaty. 'It is time to build dams', said Foreign Minister Seyoum Mesfin (George, 1998), no doubt mindful that famines have precipitated the downfall of Haileselassie and Haile Mariam Mengistu in earlier decades (Collins, 2003). To this, Mubarak threatened to bomb Ethiopia, whereupon the Ethiopian leadership claimed that nothing and no-one could stop it.[69]

However, if Ethiopia's response was 'tit-for-tat', as Waterbury claims (Waterbury, 2002: 83), its actions came about in a pussyfooting kind of way. Ethiopia pressed ahead with the Teccane River dam in Tigray- but that is a hydro-electric project, not an irrigation project – which stalled due to the territorial war with Eritrea (Waterbury 2002: 120). The second response has been for the country to embark on a series of small-scale dams - some 500 are planned in Tigray province and another 500 in Gondar (Waterbury and Whittington 1998)[70]. The advantages of a micro-dam strategy for Ethiopia are obvious: they do not need international funding, they are relatively more efficient, they are hardly vulnerable to military attack, and the compounded downstream effects are hard to quantify – they are estimated at 2-3 BCM (Whittington and Waterbury, 1998). Ethiopia is loath to give information about the dams, although it is not clear whether this is because the information is 'securitised' or because there is no data (Mason, 2004: 171).

Under the more relaxed atmosphere facilitated by the Nile Basin Initiative (see below), Egypt will support non-subtractive water uses like hydropower projects at the Blue Nile Falls (Tis Abay II, $63 million, 450 MW). Moreover, Ethiopia has meanwhile been enmeshed in repeated wars with Eritrea, so that it had other concerns than negotiating with Egypt.

2.2.4　STRONG-HEADED SUDAN

Apart from Ethiopia there is another tough customer to appease: Sudan. The Blue and White Nile join forces at Khartoum, Sudan's capital city. As Sudan controls both branches of the river, a healthy relation with its next-door neighbour is of great importance to Egypt. The country however continues to benefit from a shared colonial past with Sudan. Hydraulic co-operation led to the construction of various dams for Egypt's benefit, which, however have not always been very well co-ordinated (Waterbury, 1979).

Britain recognised the potential for political blackmail of the Nile to play the countries off against each other at an early stage. In 1924 the governor of Sudan was killed by an Egyptian. A furious British High Commissioner for Egypt then announced that Sudan could have as much water as it wished. At that time however Sudan laid very little actual claim on the river.

Egypt had gained independence from England in February 1922, but remained a *de facto* protectorate. In 1929 Egypt signed a highly favourable agreement with Great Britain, which then controlled Sudan, Uganda, Kenya and Tanganyika (future Tanzania). The treaty gave Egypt 48 billion cubic metres (BCM) and Sudan only 4 BCM as measured at Aswan. But as Sudan developed its cotton potential (the Gezira Project), that situation changed. Tensions with Sudan mounted between 1954 and 1958. After independence in 1956 the new Sudanese government called for the revision of the 1929 Nile treaty. Egypt withdrew its support for the Roseires dam, which Sudan had built without consultation, and moved army forces to the border. At the same time, Sudan worried over the impact of the envisaged Aswan High Dam, whose storage lake straddles the border with Sudan and could easily flood parts of its territory. In 1958 reclamation reconnaissance began and in 1959 the governorate of the New Valley was created, adjacent to Sudan. A coup in 1958 brought Sudan more Egypt-friendly rulers, who concluded a new agreement with Egypt in 1959, the *Treaty for the Full Utilisation of the Nile*, which had a 30-year validity. The bilateral agreement included the establishment of a Permanent Joint Technical Commission.

Full utilisation meant that previously unallocated Nile water was now carved up between Sudan (14.5 BCM) and Egypt (7.5) (Hornstein, 1999). Significantly, Ethiopia was not party to the treaty. While the allocation in principle left some 'slack' for Ethiopian use and future expansion, the Full Utilization of the Nile treaty was not given its name thoughtlessly: 'the Egyptian Government has been extremely vigilant in ensuring that all waters are currently used' (Allan, 1999). The 1959 Agreement set out a 50-50 share of both the costs of the canalisation projects in the *Sudd* ('blockade') marshes in South Sudan, and the allotment of newly accrued water. The technical committee established by it, the Joint Permanent Joint Technical Commission (PJTC), functioned until 1984.

One reason why Egypt reasons it can get away with claiming so more Nile water for Toshka is that much water gets 'lost' along the way. As the Nile passes through Sudan, it loses much of its momentum - and its discharge - in the Sudd marshes. The flow is so slow there that 50% of the White Nile flow evaporates under the cloudless sunlight. Much evapotranspiration would be avoided if the Sudd marshes could be bypassed – the estimated 5 km^3 gain would just offset the extra demand resulting from the Toshka lakes project. A planned bypass running from Bor to Malakal would bring an additional 4 billion km^3 each year into Egypt, improve navigation between South and North Sudan and irrigate 200,000 acres in South Sudan.

But the 360km Jonglei canal project, started in 1979, was destined for trouble. First, because it cuts right through the migration routes of transhumant Southern tribes (Nüer, Dinka and Shilloth), destroying their livelihoods, subject large areas to desiccation and jeopardise swamp fishing livelihoods. A smaller-scale version was tabled to remedy some of those defects in 1979, but that plan was rejected by the south because too much water would still drain to the North and Egypt, rather than fulfilling Southern dreams of agricultural development (Hornstein, 1999). The leader of the Southern separatist movement SPLA, John Garang, even devoted his PhD

thesis at an American university to a criticism of the Jonglei Canal (Hornstein, 1999). However, the canal had become a flashpoint of conflict in the broader struggle between the Arabic, Islamic North and the black, Christian and animist South. SPLA armed attacks to stop construction works were successful in 1985, leaving a half-finished canal and a giant 'bucketwheel' cutter, used to cut through the dense growth, rusting in the marshes (Hvidt, 1995).

Perhaps this resistance was to be expected, and one may wonder why Sudan concurred with turning the ecosystem into a 'ditch' (Hornstein, 1999) to give Egypt extra BCMs. There may be a return of favours, as Egypt had intervened twice, militarily, to rescue al-Numayri's regime, in 1971 and July 1976, so it stands to reason that in exchange for Egypt's help, Sudan concurred with the Jonglei Channel (Swain, 1998).

Sudan borders six Nile countries and is hydrologically well placed for exploiting the river's water resource. Two out of three Sudanese work in agriculture. Recurring famine and malnutrition provide ample legitimation for water development. Sudan's population of 40 million[71] is growing at a rate of 2 to 2.4 % per year. South Sudan's estimated population of 7 million is set to increase with the return of up to four million southern refugees.[72] This demographic pressure will further stress Sudan's Nilotic water resources.

Since the fundamentalist Islamic revolution overthrowing Numeiri in 1985, relations between Egypt and Sudan have almost gone back to square one. In 1989 Sudan decided not to renew the co-operation agreement and agreed a Declaration of Friendship and Peace with Addis Ababa[73] to establish a Blue Nile Valley Organisation and study joint projects in 1991.

Egyptian relations with Sudan worsened steadily in 1994 and 1995. The oil-rich Halaib Triangle is disputed between Egypt and Sudan[74] - both countries invoke mutually contradicting colonial treaties. The unresolved territorial conflict led Egypt to populate the area. In 1995, Mohammed Ibrahim Soliman, Minister of State for Reconstruction and New Communities, announced that Egypt would erect three settlements there housing a total of 70,000 people. In this context the impression comes to mind that Egypt intends to create facts on the ground – Egypt actually plans airports and a road in Halaib. Egyptian and Sudanese troops clashed in Halaib the day after Egyptian president Mubarak barely survived an assault in the Ethiopian capital of Addis Ababa in June 1995. Egyptian fingers pointed at the Sudanese government, accusing it of sponsoring terrorism. Sudan responded by calling off the Nile treaty. The new Sudanese leader, Hassan al-Turabi declared: 'Sudan has full control of the Nile' whereupon Egyptian Minister Muhammad Mussa rebutted:

> "If Sudan wants to play with water, it is playing with fire. (..) Any step taken to this end will force us into confrontation to defend our rights and our life. Our response will be beyond anything they can imagine.' (Schiffler, 1997)

In spite of its bold language (Belshaw and Belshaw, 1999) Sudan so far has built little infrastructure to back up its tough words, though. It lacks the obstructive upstream power that, for example, Turkey has developed in the Euphrates-Tigris basin. Even when the new, 83m Hamlab or Meroe dam will have been completed, Sudan will not be able to store a whole season's Nile discharge (Schiffler, 1997). The Meroe (Merowe) Multi-Purpose Hydro Project near the confluence of the White and Blue Nile on the 4th cataract of the River Nile in North Sudan is currently under construction with bilateral funding from both the Gulf states (a loan from the United Arab Emirates, Collins 2003) and China, the latter no doubt in exchange for a share of Sudan's oil wealth (Cascao, under review)[75]. Once completed, the Meroe Dam can impound 20% of annual Nile flow and produce annual electricity yield of 5.5 TWh). Preparations for the Kajbar Dam at the third cataract of the Nile are started as well.

When Sudan's warring factions signed the Comprehensive Peace Agreement on 9 January 2004, bringing Sudan's long civil war to an end, this opened up – in principle, South Sudan's vast water resources for development. The peace brokered between North and South may open the door to completion of the canal. A referendum will decide the possible secession of South Sudan

in 2011. Since the South is also where much of the oil is, secession would be a sensitive economic loss. Moreover Egypt still has its eyes on the Sudd and wants to revive the Jonglei (Jangali) Canal. Also projects in the White Nile basin, in Machar Marshes and Bahr el Ghazal are counted on to increase the efficiency of discharge towards Egypt (Waterbury 1998) - which could create just enough slack to accommodate Ethiopia's claim for 9.5 km^2 without needing to change the 1959 treaty (El Khodari 2003). Egypt is well aware that it will be very hard to achieve anything in the way of pan-Nilotic co-operation without Sudan. When in 1998 a shuttle diplomacy between Cairo and Khartoum resumed and Sudan extradited a dozen Islamic activists to Egypt (Egypt accuses Sudan of aiding and abetting Egyptian Islamism), this also boded well for long-cherished development initiatives for the Nile basin (Alterman, 1998). Sudan therefore had little incentive to grumble about Toshka.

2.2.5   THE EAST AFRICAN COMMUNITY

In addition to uneasy relationships between Egypt, Sudan and Ethiopia, the past few decades have seen the fledgling formation of a second power block, the East African Community- Kenya, Uganda and Tanzania. Rainfall there is much more reliable than in the Eastern Nile, so that the aspiration for irrigation is lower. But crucially, the three countries are co-riparians to Lake Victoria, fed by 40 rivers and de facto source of the Nile. To forestall a possible counter-offensive and secure permission to access to this source, Egypt has long used carrots and some sticks to keep control. In 1950 Egypt secured access to Uganda's water posts at all times to capture meteorological and hydrological data from the East African Lakes basin, including Lake Victoria. This would help Egypt 'determine the amount of water it could receive from the upper reaches of the Nile, and thus would allow them effective long-term planning' (Okidi, 1994). In return, Egypt would contribute to the upkeep of the gauging of the posts. Meanwhile, Egypt seeks to influence any plans for upstream hydro-electricity generation. Since electricity generation, unlike irrigation, is not consumptive (it does not abstract from the quality or quantity of available flow) Egypt is not too worried about the dam, and might in fact benefit from upstream regulation, but feels the need to make sure it was in control. Thus, Egypt was negotiating with the British Government[76] between 1948 and 1953 on Uganda's Owen Falls Dam, intended for the generation of electricity (Howell and Allan, 1994)[77].

After independence in 1963, however, the Government of Uganda declared in a letter to the Secretary General of the UN that all colonial-era Treaties would be considered 'terminated' unless modified by agreement with the Government. But like in so many other riparian countries, Uganda's war (with Sudan) and domestic strife have taken attention away from the Nile, and in practice Uganda stuck to the agreement with Egypt and reaffirmed them in 1991. Egyptian-Ugandan cooperation continued including plans to clean out weeds that clogged Lake Victoria and Kyoga and caused local floods in Uganda. However, the 1990s have seen a more assertive Uganda. Uganda's parliament in 2004 proposed to rescind the treaty and charge Egypt and Sudan for water use.

In December 2003 the Kenyan minister of Foreign Affairs stated that "Kenya will not accept any restrictions on the use of Lake Victoria or the River Nile" and Chris Oboru, a Kenyan MP, said 'This is a human rights issue. Egypt cannot continue wallowing in wealth, while Kenyans are languishing in poverty'. Egypt did not take kindly to these words and threatened economic and political sanctions.[78]

The boldest move was made further south: Tanzania is reported to have launched a $27.6 million project to divert water from Lake Victoria to Kahama in the region of Shinyanga region, in contravention of two colonial treaties Britain signed with Egypt and Sudan controlling the use of water from the lake.

"Tanzania… [has lost] patience with talks involving Kenya, Uganda and Egypt over the validity of the two [colonial] agreements signed… Despite engaging in lengthy negotiations over the use of waters from Lake Victoria and the Nile, Tanzania has maintained that the two [colonial] agreements were illegal". (Beyene and Wadley, 2004)

However, Tanzania was quick to point out that its $27.6 billion project would not affect the lake or the Nile flow. "The water we get from Lake Victoria is such a small amount of water anyway and it does not affect water coming to Egypt."[79]

In 1999 the three countries revived the East Africa Community which had broken down in 1977. (Kagwanja 2007). Joining upstream forces could in principle strengthen their hand in making a stance in negotiations with downstream Egypt and Sudan, but in practice appears to have led to careful manoeuvering. The next section briefly sketches the history and results of Nilotic co-operation.

2.3   THE ROAD TO THE NILE BASIN INITIATIVE

The intermittent collision course outlined above has not been lost on the international world. Under the Clinton administration, environmental security has become a key issue in American foreign policy. Water scarcity, it is feared, could be an occasion for violence, and the United States appointed twelve problem areas as 'environmental hubs'.[80] Addis Ababa, the Ethiopian capital, is one of those hotspots.

But it is mostly World Bank dignitaries that are now busily shuttling between Cairo and Addis. After a series of public relations disasters (Narmada, Arun II) the World Bank seems desperate for something to succeed and betting on the Nile Basin Development Plan. Significantly in this respect, Egypt has succeeded in catapulting its leaders on strategic global positions in water and environment policy for a (Allan, 1990): Boutros Boutros Ghali (former Secretary-General, United Nations), Ismail Serageldin (vice-director World Bank) and, more recently, Egypt's Water Minister Mohamed Abu-Zayd (president of World Water Forum 2000 in the Hague). Egypt's *de facto* veto on World Bank support for upstream projects on the Nile has been a most effective tactic, as Ethiopia lacks Sudan's pulling power for drumming up counteracting international support.

Nile co-operation has a pedigree. Undugu ('brotherhood'), an Egyptian initiative, operated under the auspices of the Organisation of African Unity since 1983 - but without the participation of Ethiopia, Kenya and Tanzania. Within this forum Egypt floated daring plans such as an electricity grid from Lake Victoria down to Aswan. A *Century Storage Plan* for storing water near Lake Tana in Ethiopia and Lake Victoria even dates back from 1904. Ethiopia has always approached such fora with scepticism, seeing them as a vehicle for Egyptian hegemony[81]. Indeed they have not been very successful so far, and neither have other technical fora such as Hydromet and Tecconile,[82] especially when a long dry spell put all countries under stress. However, a window of opportunity opened in the early 1990s. After a long period of drought, Lake Nasser started to rise, easing the pressure on Egypt. In 1993 Egypt offered its upstream riparians financial support for projects as long as they would not divert Nile waters. Within the six-country Tecconile group, and with the support of the Canadian International Development Agency, the US$100 million Nile Basin Action Plan was launched in 1994. The Plan 'included twenty-two projects for water resource management, institution building, training, regional cooperation, and environmental protection among the states of the Lake Plateau' (Collins 2003). The United Nations Development Programme (UNDP) created the so-called ´D3´ initiative to facilitate the first ever meeting of all Nile riparians (Westermann 2003), and after international experts called for the NBAC's 22 disparate infrastructural projects into a Shared Vision, presented at the Second Water World Water Forum in 2000. The initiative's role in guiding the mission was authorised by the 3rd Council of Ministers meeting in February 1999. The World

Bank, Cida and UNDP now put considerable effort into promoting the ensuing Nile Basin Initiative, which was enthusiastically condoned by all states in 2001.

The enthusiasm may well be related to the funds made available in this project, as well as by its non-threatening nature. Egypt's *Al Ahram weekly* newspaper (2001) sees a considerable role of transnational contracting and water industries in the genesis of the NBI: 'They lobbied to promote these plans and succeeded in obtaining the agreement of the Nile Basin states to enter a joint initiative to develop the river as a whole.'

The initiative is resolutely non-threatening, first because technical co-operation carries less risk and also less political weight - but also because upstream irrigation is resolutely on the non-agenda. Important options are still beyond the pale. To address the problem of evaporation and seepage from Lake Nasser (12-14% of the annual input (Dasgupta and Chattopadhyay, 2004), the most effective option would be to move water storage to reservoirs under cloudier skies. This takes considerable international political will. The initiatives seem to have helped *desecuritise* information: 'The establishment of a grid of sensors all over the Nile to accurately measure water level/flow and to predict flooding/drought is another achievement. At one point these data were considered 'national secret' in the case of Egypt.'[83] *Al –Ahram* however still complains about a lack of transparency over the Nile initiatives.[84]

This gives us a perspective on the form Nilotic co-operation is taking. While a paper on the 8th Nile 2002 Conference contrasts 'hydro-cooperation' with 'hydro-politics' (Girma, 2000). I would argue that cooperation is hydro politics too. A striking aspect of Nile cooperation is that it is focused on improving water quality or exploiting non-consumptive water quantities (hydro-electricity), never on the distribution of water between the countries. Egypt is also very willing to initiate projects with joint benefits that will increase the amount of water flowing into Egypt. For example, it is interesting to see that the Jonglei Canal is one of the NBI's projects, and that a second Jonglei channel is being considered. Egypt's role in peace building in Sudan appears very closely linked to a (Egypt's) desire to have the canal completed and indeed Egyptian experts will be involved in new dam plans (pers. comm. by e-mail, Eissa, January 2007).

In terms of epistemic communities, all kinds of technical co-operation (TECCONILE, NBI) make sure that experts keep exchanging information even when political communication breaks down. It also ensures a 'sanctioned discourse' that prevents a frank debate on the terms of Nile co-operation. So while learning and shared benefits are certainly within reach, they do not take away from their role of propping up Egypt's primacy.

Hegemonic stability or change?

However, while belligerent discourse is repeatedly voiced both up- and downstream, the Nile has seen no armed conflict so far, and is unlikely to do so in future despite increasing upstream assertiveness. All involved seem to cooperate more or less happily in the continuation of a conflict, which takes on aspects of a ritual, as well as bringing attention and, potentially, donor funds. This latter observation seems particularly true of the Nile.

Waterbury in this context warns that '(a)symmetrical rewards always characterize the potential outcomes of cooperation in international river basins' (q. in Lindemann, 2005). Whether hegemonic stability is evaluated positively or negatively depends on whether non-hegemons perceive benefit in the status quo. Perspective is decisive for this normative evaluation. Non-hegemons are obviously interested in blowing up the perspective of conflict, while hegemons are interested in projecting an image that all is plain sailing.

Thus, an Ethiopian newspaper could write:[85]

'The arithmetic of the waters of the Blue Nile River is, therefore, a zero-sum game, which Egypt is determined to win. It must have a hegemonic relationship with the countries of the Nile Valley and the Horn of Africa. When, for instance, Ethiopia is weak and internally divided, Egypt can rest. But when Ethiopia is prosperous and self-confident, playing a leading role in the region, Egypt is worried'.

In response, Marawan Badr, the Egyptian Ambassador to Ethiopia wrote:

> 'Such political commentary, or more correctly, political trash, cannot come [except] from a sick and disturbed mind. Egyptian-Ethiopian relations are not in a crisis. We do not even have problems. There are serious issues, which need to be addressed' (quoted in Kendie 1999: 141-142).

Egypt's Water Minister and 3rd World Water Forum chairman Mohammed Abu-Zayd expressed more politely that "there is no conflict or struggle between Egypt and any other Nile Basin country" (quoted in Brunnée and Toope, 2002).

The denial of alternatives to the harmonious discourse of course does not mean they are not there. According to Waterbury (2002), Ethopia and Sudan are intent on changing the Nile regime, while Uganda and Kenya are not. Ethiopa however lacks the material basis that Sudan has – oil – and that allows it to escape circumvent established systems of patronage. Sudan's position is still unclear after John Garang died under mysterious circumstances in 2005, while domestic war and suffering in Darfur continues. It is not unimportant that Sudan is a target on America's rogue state list. According to El-Khodary (in Ravnborg, 2003), Egypt was unhappy with US giving $2bn in military aid to Ethiopia, Eritrea and Uganda, and intervening in Sudan's civil war in favour of Southern Sudan's liberation army, SPLA-M. If South Sudan will be given independence in 2011, the new political entity is likely to pursue its own hydraulic mission on the basis of John Gerang's vision, which could in turn change the dynamics, and might side with Ethiopia (see also Cascao, under review).

2.4   CONCLUSION – MIDNIGHT AT NOON OR OUT OF TIME?

Having reviewed Egypt's domestic and external strategy, we are now in a better position to explain why Egypt might insist on the Toshka scheme in what is surely one of the most inhospitable places on earth.

The sense of the Toshka project is hard to defend. The lack of space is contestable, and living conditions in the new area are such that it is unlikely to attract millions of new dwellers. Instead it seems to serve foreign hydropolitics, inspired by a 'prior use' strategy to safeguard acquired water rights to Nile water rather than meaningful domestic development, and a domestic strategy to create work for the army and construction sector.

The present contribution concurs with Whittington and Waterbury's (1998) claim that the Toshka channel project is best explained as a plank of a basin strategy to make a claim to prior use of Nile floodwaters and in so doing safeguard claims for the long term. Egypt's domestic, regional and international position is strong enough to risk short-term conflict over this move, keeping the pressure on by using the Nile's floodwater as fully as it can. Internationally, an ongoing position play of threatening language and cooperative agreements can obfuscate the ongoing hegemony Egypt enjoys in the Nile. While offering its cooperation to upstreamers and initiating Nilotic co-operative initiatives and organisations, Egypt can also be said to hegemonise this regime by suppressing alternative discourses.

In the international arena, Egypt's hegemonic position at home and abroad is strong enough to be able to claim that there is 'no conflict' on the Nile. Renouncing treaties and threatening military action have been a popular but pretty meaningless gesture for upstream Nile riparians. Now that political relations between Egypt and Ethiopia have been normalised to some degree, some sort of treaty cannot be too far away. The Blue Nile states are also talking about three-way co-operation on both the Blue Nile and three of its tributaries.[86]

It is telling that most mega-plans under the NBI concern the White Nile, where upstream states are less vocal. US and World Bank interest in regional stability has provide a financial and/or diplomatic incentive to this process. The Bank seems determined not to let this basin plan fail because of neighbourly squabbles.

Under the bright rhetoric on cooperation lies the reality that the Nile Basin Initiative has not led to talks on sustainable reallocation of the Nile flow. When push comes to shove, both Egypt and Ethiopia have so far lent substance on the ground to prior-use claims in preference to coordinated management. The New Valley projects only really make sense in this context.

Various forms of (regime) closure are part of the country's water security strategy in the face of the unpredictability of the resource and of upstream state behaviour. In addition to its co-riparians, Egypt also keeps a tight rein on its own population, and firm control on the waters coming in at Aswan. To pull off its international strategy, Egypt keeps tight control of the scheme and forestalls or co-opts opposition or alternatives to the project. The securitisation of space and development supports a normative consensus, so that domestic and riparian control is maintained without resorting much to outright coercion and repression. This has included foreclosing a public discussion of the alternative of virtual water, and of what to do about the dependency it brings in future. However, the debate in press and Parliament suggest cracks in the smooth surface.

Chapter 3: Resisting the Turkish *pax aquarum?* The Ilısu Dam dispute as a multi-level struggle

"I appreciate their fears," [Turkish President Özal said in 1992], "but we will not harm them. To the contrary, Turkey will more than make up for the water shortage. I have tried to convince Iraq and Syria of our positive intentions."

3.1   INTRODUCTION

Both the Euphrates and Tigris rivers have great extremes between their highest and lowest flow levels[87], bringing risk of both drought and floods. The mortal fear of floods in Mesopotamia, the 'land between the rivers', is expressed in the Gilgamesh epos and the biblical deluge. Downstreamers are normally the first to shield themselves from flooding and develop the flatter valley lands, and Iraq is no exception. But the region is also drought-prone, inviting impoundment of water in dams. When mid-stream Syria started developing the Euphrates, the two countries just stopped short of a violent clash over water in 1976. But the two countries share a concern ever since upstream Turkey embarked on its mega-multi dam project to control the floodwaters on the Euphrates and Tigris rivers and develop its poor Southeast in the late 1970s, the Greater Anatolia Project, it has truly been on a collision course with both neighbours. It should not come as a surprise that this basin has frequently been presented as a prime candidate for 'water wars' (Starr & Stoll, 1987, Bulloch & Darwish, 1993, Homer-Dixon, 1999, De Villiers, 1999).

The present study investigates water *securitisation* and *politicisation* in the Euphrates-Tigris basin. Given its importance to state building and integration, hydraulic development is a prime candidate for securitising moves, that is, being portrayed as so essential for national survival that it is non-negotiable and legitimises extreme measures (Buzan *et al.*, 1998). Debate, dissent, alternatives are foreclosed, so that 'normal' political processes cannot take place.

Is the Euphrates basin indeed prone to anarchic, dog-eat-dog conflict, or is there question of co-operation? Three different answers to this last question emerge from the literature:

One voice sees no order at all:
- 'There is no cooperation whatsoever... a Hobbesian state of nature... there is no sign that the chaos is ever going to end' (Kalpakian, 2004: 89).

Others however take a contrary view:
- Turkey pacified the region resulting in a *pax aquarum* (Kolars & Mitchell, 1991) which makes it sound as if the Ottoman Empire still existed. Marwa Daoudy (2005) contends that Turkey is the undisputed basin leader (hegemon). Turkey's dominance was such that it can 'do whatever it likes' with the water, as then President Demirel famously stated in 1992 (Kalpakian, 2004)
- A co-operative regime has been formed under American hegemony, as Ayşegül Kibaroğlu claims (1995 and pers. comm. 2006).

The chapter will argue that the three narratives can be reconciled by taking a multi-layer approach.

Meanwhile, a politicisation process appears to have taken place over the Ilısu dam. Since 1983, several Turkish mega-dams for irrigation and hydroelectricity were built over both neighbours' objections. For a breathtaking moment at the turn of the century, however, the construction of the Ilısu Dam, the first GAP dam on the river Tigris, seemed to constitute a break in the pattern. The flooding of villages to make room for Ilısu reservoir dam reservoir, including the historically

important town of Hasankeyf, exposed the projected dam to resistance from a coalition of local, basin and international NGO groups who managed to stop the flow of external funding of the dam in 2001/2002.

What opened up the possibility to *politicise* the Ilısu Dam and its flooding, and how successful was it?

FIG 3.1   *Map of Turkey*
From: www.faqs.org/docs/factbook/maps/tu-map.gif
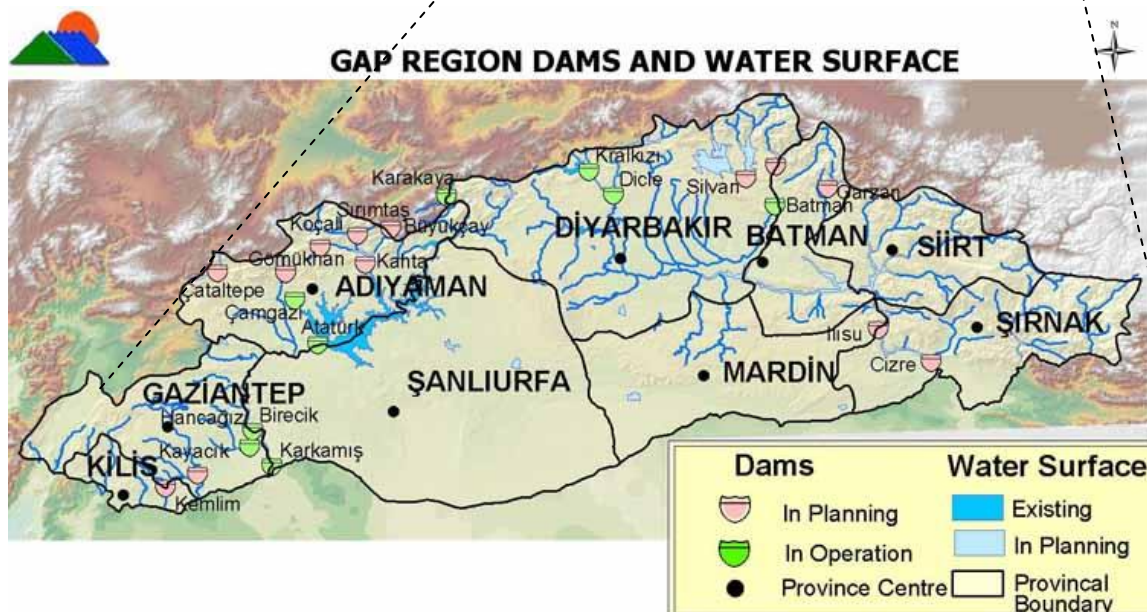
FIG 3.2   *Overview of GAP dams*
From: http://www.gap.gov.tr/Flash/Ing/gaphrt/gharita/ggn4.jpg

The chapter is structured as follows:

Section 3.2 explores how, Turkey, as a former empire, learned to be 'first among equals' in a 'rough neighbourhood', which according to Aydın (2003) plagues Turkey with an 'insecurity complex'. Does this legitimise claims to exceptionalism at home and abroad, known as 'securitising moves'? (Buzan *et al.,* 1998) Section 3.3 sketches the genesis of Turkish hydraulic

development and identifies it as a domestic 'concept of control' with respect to the Kurdish minority. Section 3.4 analyses if such moves for closure have happened in Euphrates hydro politics, and what effect they had on decision-making and resistance to the dam projects. Section 3.5 shows that institutional change (privatisation of the water sector) with a view to accessing international funds gave NGOs a look-in to attack construction companies and especially their financial guarantors. It focuses on the politicisation of the Ilısu hydropower project, structuring the analysis with the help of Buzan's security domains. It will especially zoom in on the way the campaign played out in Britain. Section 3.6 evaluates a discussion of the elements of the theory and their application to the case study. The paper concludes with an assessment of the usefulness of multiple-chessboard analysis of hegemony.

3.2   THE DISCARDED OTTOMAN: LIFE AFTER EMPIRE

Turkish politics cannot really be grasped without taking the state's imperial legacy into account. Just like the Serbian trauma over their 1389 defeat (at the hands of the Turks) still informed late-20th century passions over Kosovo, the memory of the giant Ottoman empire dominating the political rhetoric in present-day Turkey. Some Turkish politicians have never abandoned the aspiration - at least in political discourse - to regain past glories of the Ottoman Empire (ca. 1299-1922), which led one Turkish president, Turgut Özal, to proclaim that 'the 21st century will be the Turkish century... from the Adriatic to the Chinese Wall' (quoted in Zürcher, 1998). In turn, Syria and Iraq have not forgotten they were once under sometimes ruthless (Kapalkian, 1994) Ottoman tutelage.

In 1920 the defeated Sultan signed the treaty of Sevres, which lobotomised the Ottoman Empire, leaving a small heartland around Ankara in central Anatolia, ceding West Anatolia and Thrace to European powers, creating Armenian and Kurdish states and putting Istanbul and the Turkish Straits under international control (Drorian, 2005).

The revolutionary Young Turks and their 'people's army' forced the last Sultan, Mehmet VI, to abdicate in November 1922, which put an end to the Ottoman empire, and established a secular, European-oriented republic with a strong role for the military. Turkish territory remained miniaturized: the Fertile Crescent (Iraq, Syria, Lebanon, Palestine and Jordan) became a Franco-British mandate, Northern Mesopotamia fell to Britain and except for Thrace all European territories had to be ceded. Turkey became a republic without external territories, but the new government managed to negotiate in the Lausanne Treaty of 24 July 1923 that the minorities did not gain independence and international control was rescinded. According to Drorian, the existential threat posed by Sevres continues to be an obsession for the present-day government, which explains distrust of European conditionality for Turkish accession to the EU and the insistence on unity, nationalism and secularism (Drorian, 2005: 259).

From the time of the creation of the Turkish republic in 1923, its guiding slogan was 'Peace at home, peace abroad'. The next sections will look at Turkey's foreign and domestic politics, respectively, after which it will be explored how the two are linked by hydro politics.

3.2.1   TURKEY'S FOREIGN POLICY: PLAYING THE FIELD

Rather than a has-been, post-Ottoman Turkey manifested itself as a regional player. Turkey is historically very well placed at the crossroads between Southeast Europe, the Middle East and Central Asia.

Aydın (2003) however sees a worried soul beneath the bullish exterior. Aydın claims Turkey is in a perennial regional 'insecurity complex', a permanent sense of feeling unsafe. In his analysis,

being situated in a 'rough neighbourhood' explains Turkey's eagerness to exercise domestic and external control, and a prominent role for the military sector.

One of Turkey's worries is Iraq (Aydın, 2001, fn.). Especially after his invasion of Kuwait, Saddam's territorial aspirations had been an ongoing cause for concern for the Turkish state (Aydın, 2003) and Turkey lent logistic support to the allied invasion of Iraq in 1991. However, Turkey preferred some overture with the Iraqis, as it occasionally needed them to grant rights to 'hot pursuit' of Kurdish separatists on Iraqi territory.

Saddam's hydraulic strategies against opposition were rather more radical than Turkey's. Saddam had a 'Third River' dug to connect the Euphrates and Tigris and develop its soils. This handily required the drainage of the wetlands between Euphrates and Tigris where the rebellious Marsh Arab population lived, the Ma'adan. While Saddam Hussein's marsh drainage strategy became an international news story, it is less well known that he apparently planned flooding the Kurdish separatists in the north, the Iraq Kurd Federation. According to Middle East Watch, the Kurds were uprooted from the countryside with an estimated 40 chemical attacks (most notoriously on Halabya) fleeing but trapped by security forces in so called Anfal campaigns. Farmland and trees were destroyed, villages bulldozed or dynamited, and it was planned to flood large areas of the Kurdish-inhabited areas by raising and breaking barrages.[88] An electricity embargo against Iraq's northern provinces threatened water supply until Turkey started supplying electricity to that region in 1994 (Jongerden, 1994).

The Iraqi Kurds were too divided to put up anything but a united front for long [89]. This 'realism' is tragically mirrored at the interstate level by Turkey and Iraq. Turkey has always resented the loss of the Northern Iraqi region. Mosul and Kirkuk are rich in oil, and the population there is largely many Turkoman. While the army has emphasised the sanctity of Republican borders, President Özal has voiced the claim to the province of Mosul like it was in Ottoman times in 1991 – a faux pas he was forced to retract quickly.[90] Saddam's Iraq reportedly found it useful to provide logistic support to the PKK in Turkey (*Partiya Karkeran Kurdistan*, Kurdish Workers' Party) to weaken the Turks, while Iraq also cooperated with Turkey to control the PKK in North Iraq, where they might ally with Iraq's own Kurdish separatists.

On the other hand Turkey reportedly refused to block the Euphrates in 1991 despite allied requests to do so, arguing that 'water is life' and therefore it will not use water as a military instrument. While Ankara allowed the allied forces to use Diyarbakir, a key Kurdish-majority city in Southeast Anatolia, as a base for its war on Saddam in 1991, Turkey no longer allowed its territory to be used as an allied air base in the 2003 war on Iraq.

Turkey manages to make much political capital out of its geographical location. It connects three macro-regions Europe, Central Asia and the Middle East, a geopolitical nexus that virtually ensures NATO backing. Turkey has been a long-time member and cornerstone of NATO, and was one of the top three recipients of American foreign aid until the war against Saddam (after which Iraq entered the top three).

Turkey has also made considerable concessions to Europe to keep the door open to membership of the European Union of which it would, at a stroke, become the largest member. Converting Abdullah Öcalan's death penalty into a life sentence is only one of many European demands for reform Turkey swallowed whole. After the capture of Saddam Hussein, Turkey immediately declared its intention to respect the boundaries of Iraq, despite its territorial claims on oil-rich Mosul and Kirkuk. Realising that European membership would mean the obligation to accede to existing European water legislation (see also Hermans, 2005), Turkey commissioned a Dutch consultancy, Grontmij, to make a study of Europe-compliant Integrated Water Resource Management of a river it shares with Greece and Bulgaria.

Finally, the collapse of the Soviet empire has not freed Turkey from rivalry with Russia but opened up avenues for Turkey to exert influence in the Turkic countries in Central Asia – a 'pax Turkicana'.[91] While Iran can count on Armenia as its ally, Turkey has natural cultural bonds with the four Turkish-speaking states of Central Asia, Kazakhstan, Kyrgyzstan, Turkmenistan, and

Uzbekistan. As the Americans would rather not see expansion of the Iranian sphere of influence, they back Turkish inroads in the region. Although Erik Zürcher (1998) reasons Central Asia is too embedded in the Russian sphere of influence for Turkey to make much chance of enticing it away, that will not stop Turkey from trying. '(T)here is ... no local great power in the multi-polar Middle East complex. It is also a region in which Ankara, interestingly, acts in a more unilateral fashion, and 'dares' more than in the other regions' (Kazan, 2005).

In this regional context it is very helpful for Turkey that its territory is located upstream on the rivers Euphrates and Tigris, and (together with Lebanon, which has not succeeded in reaping the benefits of its natural advantage) is the only water-rich country in the region. Its geographical location at the headwaters of the Euphrates and Tigris, the main sources of freshwater of its most troublesome neighbours, Syria and Iraq, is extremely convenient to Turkey. Whether intentional or not, the control of water for development in its bold Southeast Anatolia Project also meant control of water *vis-à-vis* its downstream neighbours. An unmistakable effect of the intensive damming of the two rivers is that, in principle, it enables the Turkish to turn the tap on or off.

By 1990 the GAP scheme had expanded to 22 dam projects (80 dams) and 19 hydropower schemes (involving 66 hydropower stations) on both Euphrates and Tigris[92], providing irrigation for 1.9 million ha and investment in health, education, finance and transportation to modernise a traditional agricultural society in a region twice the size of Belgium (Balat, 2003). It is not easily explained how the importance of Turkey's *Güneydogu Anadolu Projesi* (GAP) multi-dam project to national greatness can justify spending up to a tenth (on average 7%) of the national public budget on the project for several years (P. Williams 2001) without considering other motives such as integrating the Kurds and realising regional hegemonic aspirations in the hinterlands.

Regional water trade?

It was noted above that in the geopolitical lay of the land, Turkey is very well endowed with water and premium location. While its upstream position and infrastructural development lends the country the position to control the 'tap' on its downstream neighbours, its enviable position as a water-rich state in a water-poor region as well as the (relative) political stability to exploit and deliver it water wealth also enables hydro diplomacy with other states. The Turks recognise the significant potential for political gain in water exports - even though they have at times great difficulty providing water and sanitation for their own mega-cities.

In 1987 Turkey proposed a twin Peace Pipeline, at the cost of $20bn (1987 dollars) to provide water for the whole region: eastward to Saudi Arabia and westward to Israel and Palestine, which was universally rejected. While subsequently plans for a mini- and mini-mini-pipeline were developed,[93] none of these initiatives caught on. With an eye on the hot and dry Central Asian region, Turkey has also made a water offer to this region (Hillel, 1995) and proposed a water-for-electricity swap with Greece (there are also projects with Iran and Iraq – *Turkish/Black sea energy policy review,* n.d.).

While these initiatives remained largely unsuccessful, the water trade pitch appeared to be working decidedly better when Turkey signed a military cooperation pact with Israel. Israel expressed a keen interest in water deliveries from the Manavgat estuary, close to Antalya. Annoying both Arab neighbours and domestic fundamentalists, Turkey signed an agreement in early 2004 to transport freshwater in giant, Norwegian-made nylon 'Medusa' bags by sea to Israel from the river Manavgat, with regular water supply foreseen from 2006 (Pamukcu, 2003). The experimental bags however had an annoying tendency to sink, so it was decided to transport the water in super-tankers to Israel instead. But while Turkey was eager for a PR success, Israel was slow to proceed with the contract. When in 2004, a deal was struck for the delivery of 50 MCM (million cubic meters) per year, no price or company was indicated (Gruen, 2004). Reported linkage politics, in which Turkey threatened to call off military orders and participation in GAP

projects if Israel continued to tarry with the water contract (Kenon, 2003, Vidal, 2004) seemed to be borne out when both the water and arms deals fell apart in the same week in April 2006 (*Middle East Times*, 2006).

Finally, deliveries from the Anamur or Manavgat river to the occupied section of Cyprus, a semi-arid area with 200-600mm rainfall, have likewise concerned water transfers by 10,000 m³ 'water balloons', launched in 1998 but considered uneconomic and prone to tearing, as well as underground pipelines. Large-scale structural water trade thus has not yet been in evidence (Biçak and Jenkins 2000).

When the intended recipients of Turkish water ignored the offer or declined politely, they will have realised that 'gifts' also come with a degree of dependence and vulnerability in terms of water quality and quantity. Offering co-operation to domestic and external actors - the 'friendly face of power'- creates an obligation on the part of the accepting party. In their time, the ancient Greeks successfully employed the gift of a horse to fool the Trojans (who lived in what is currently northwest Turkey), who couldn't resist accepting, but in doing so, found themselves beleaguered from the inside. A sense of being at the mercy of others' unpredictable wiles, can make some actors wary, or even paranoid.

3.2.2   DOMESTIC POLICY: HYDRAULIC DEVELOPMENT

Like in many other hydraulic states, Turkey's development trajectory was state-led and authoritarian. In 1931 Republican Turkey instated a Kemalist form of Etatism as a third way between capitalism and socialism - the 'strong state' took off. Until long after the Second World War Turkey was a one-party state and until this day the army often seems to exercise *de facto* control – as the Turkish saying goes, other countries may have an army, but in Turkey the army has a country. This prevents political adventurism but also can be a brake on democratisation and reform (Aydın, 2003). The antagonism of democratic politics does not sit well with the military's ideals of unity and ´promotion of the state´ (Drorian, 2005).

The hydraulic imperative for the development of its hinterland can be seen as a political project to weld together feudal and modernising (industrialising) forces into a historic, nationalist compromise. Swyngedouw (1999, 2007) sketches how Spain, after losing its empire, regenerated itself by colonising its water resources in a hydraulic mission, while securing its international position by allying itself with the North Atlantic Treaty Organisation (NATO). The story for post-Ottoman Turkey appears to look remarkably similar. The towering figure of Kemal Atatürk, played a crucial role in the new strategy. In the 1930s Atatürk, father of the Turks, envisaged diverting the Euphrates and Tigris to the drier west of Turkey. This plan gave way to a development vision modelled on the Tennessee Valley Authority. The American hydraulic plan for integrated regional development project to develop the region out of economic depression, proved a model approach to developing one's way out of economic depression, spawning similar projects in Jordan (Trottier, 1999), the Mekong (Bakker, 1999), Helmand Valley in Afghanistan (Cullather, 2002) and elsewhere.

An aspiration for autarky and exportable food and electricity nourished Turkey's internal regulation and resource colonisation drive. Turkey may be poor in oil and gas, which necessitates imports from Libya and Saudi Arabia, but the country is very well endowed with other raw materials. Resource capture (hydro-imperialism), whether by institutional or technical intervention, could play an important role in the quest to integrate the Turkish state. The GAP supported ambitions for a stronger export position to bring in currency in an often inflation-ridden and structurally shaky economy. The irrigation schemes could turn the region into a 'breadbasket' for the Middle East. In the 1970s all three riparians had changed from food exporters to food importers, and all other Middle East countries are now massive net food importers. At the same time, Turkey's energy import bill skyrocketed due to OPEC's energy price

hike as well as increasing demand. These economic reasons spurred Turkey to speed up the plan for Euphrates and Tigris development.

The GAP project promised to boost both food and energy security, understood by the state as self-sufficiency. Annual hydroelectricity production from GAP will produce 22 percent of Turkey's total energy generation with an installed capacity of 7476 MW. Southeast Anatolia is dry (rainfall ranges between 470 and 830mm) but rich in fertile soils. Irrigation enables the production of summer crops (cotton, maize, sesame, soybean) which so far was impossible in Southeast Anatolia. In all, the irrigation schemes are scheduled to develop a 2 million-hectare area, an area the collective size of the Benelux countries. If all goes according to plan, GAP will irrigate nearly 1.7 million ha of land out of those 2 million or 20 percent of Turkey's total irrigable land. The Euphrates is not particularly rich in fish, \but this sector is also promoted, especially in the Atatürk dam reservoir.

After several big dams were built in the 1960s and '70s (Keban, Karakaya dams), the scheme came to be conceived as an integrated development project in successive stages. After evaluating 22 different combinations. of four dams of different heights, the State Hydraulic Works department, DSI, presented the Lower Firat (Euphrates) plan in 1970 to bring irrigation and low-cost energy to the surrounding plains between what are now the Keban and Atatürk dams. In 1977, the Lower Firat plan was integrated into a package with all other schemes in these regions, 7 hydropower and irrigation schemes on the Euphrates and 6 on the Tigris, by the name of GAP. In 1983 construction of the project's centerpiece, the Atatürk Dam, started.

Given the large outlay and uncertainties involved, the GAP Master Plan of 1989 recommended to scale back GAP to priority projects (Brismar, 2002), but at the same time continued its radical reorientation towards a regional people-focussed rather than water oriented development project It sought to propel the region, seen as backward, in terms of education, agricultural practices, gender relations, environmental conditions and participation.

In 1995 the GAP was again evaluated, this time against sustainable development criteria, which led to a joint programme with UNDP, 'Sustainable Development Programme in the GAP Region', an umbrella project of 29 projects. It sought to promote community participation, advance the role of women for sustainable regional development (q. in Brismar, 2002).

Glowing press releases call attention to tremendous export boosts (in cotton and grain) that appear to have been induced by GAP[94]. The project is meeting all its hydro-electricity goals, benefiting urban and industrial interests. However, even in its own terms, GAP so far has not been an unqualified success story. The works have tended to promote the development of the regions of the West, not the impoverished East. Indeed it is the expansion of energy production that is progressing most impressively with the development of irrigable lands lagging, the scheme's industrial orientation will attract more skilled workers from the west rather than unskilled, semi-literate and often poor labour from the southeast. Thus, as McDowall (1996: 434-435) argue, the development vision will intensify a disparity in income distribution and further exacerbate social tensions that the project was intended to ameliorate'.   Meanwhile, agricultural targets are falling short: In 1996 only some 120,000 hectares out of a potential 314 million were under irrigation and by 2004 only 16% of the agricultural goals had been realised (MacQuarrie, 2004).

Moreover land reform is not progressing well. It was hoped regional development would precipitate land reform, to break the feudal power of entrenched landed interests. *Agha*'s (latifundists) effectively blocked much action in this respect, and may well be the ones to reap the benefits of agrarian development, as they are the only ones whose land titles are recognised. State-led land reform did not happen; feudal relations prevail and compensation for flooding was given to landowners rather than sharecroppers - 38 percent in the region do not own land. 'A few individuals with good party connections have succeeded in getting the state to allocate large tracts of land to them' (Barkey and Fuller, 1998: 190).

The creation of irrigation associations under GAP, meant to improve the participatory situation, leaves great scope for local elites who already have access to dominate the process. To represent user groups or vote you need a minimum amount of land, which effectively bars landless and women from having a voice and being trained in irrigation techniques (Harris, 2002).

Moreover, the war against the PKK since 1984 (see below) also has its effects on the position of the *agha*s in Southeast Anatolia. The recruitment of village guards from the local elite reinforced the position of the *agha* (Jongerden *et al.*, 1997). The below Section delves deeper into the Kurdish issue.

3.2.3   INCORPORATING THE KURDS?

When the French and English laid down the current Turkish boundaries at San Remo in 1920 - blithely ignoring natural boundaries and denying the Kurds the nation-state they had been promised earlier - they laid the basis for many current resource conflicts in the region. Both Turkey and Iraq (as well as Iran, Syria and the former Soviet Union) have a sizeable Kurdish minority that has not forgotten its aspirations for independence.

Like many states that harbour diverse ethnic groups within their borders, the Turkish state competes for legitimacy with centrifugal actors that have the power to procure vital social services and/or identity. In the context of nation-(re)building, the early twenties continued the intensive homogenisation of the Turkish populations including a massive exchange of ethnic and religious minorities as a consequence of fights with Armenia (1917) and Greece (1921-1922). The First Turkish Republic, proclaimed on 23 October 1923, was defined as an indivisible, unitary Turkish state in which the Kurds formally do not even exist[95] - only as 'mountain Turks' or 'Eastern Turks' (*dogulu*). In the 1930s, the Kemalist republic revived the 'history thesis' claiming that Turks from Central Asia were the origin of human civilization (Shoup, 2006: 233).

Although Turkish and Arabic groups are also significant in the area, Kurdish groups dominate the GAP region. Southeast Anatolia is a patchwork quilt of landowners and landless, often groups of nomadic origin which various Ottoman rulers tried to sedentarise Anatolian nomads with varying success since the 17th century. Socially organised along tribal lines in *ashirets*, a kind of clans (Erhan, 1997), Kurdish identity is by no means socially cohesive or culturally unified.

Kemal Atatürk's relations with the Kurdish population started well, as several tribal chiefs had supported Atatürk's Young Turks to 'roll back' British and French domination of Turkish policy, as well as the influence of Christians, Greeks and Armenians. But when the 1920 Treaty of Sevres turned out to include an independent Armenian/Kurdish state in the East, relations turned sour.

As a fragmented ethnicity, the Kurds historically had not organised politically as a nation-state, but had seized on the chance of self-rule. The Young Turks made sure the promise of an independent state was erased from the Treaty of Lausanne of 1923. In 1924 Kurdish schools and organisations were outlawed. Now that the dream of independence fell through, the Kurds resisted 'horizontal integration' by an assimilative Kemalist republic, staging several uprisings such as the Sheikh Said rebellion in 1925, Bayoum in 1929 and in 1938 in Alevi-dominated Dersim (Tencili). The Kemalist republic, in turn, regarded their particularism, but also their aversion to secularism as a threat to Turkish unity. This key plank of the Kemalist scaffolding, was enforced in a (recently relaxed) curb on Kurdish identity, language and culture, seeking the cultural homogenisation (Turkification) of an imagined 'Kurdistan'. Atatürk's successor Inönü (a Kurd by birth) responded to the uprisings with mass deportation of Kurds (Jongerden *et al.,* 1997).

When the resolutely secular Kurdish Workers' Party arrived on the scene claiming to represent the Kurdish cause in the early 1980s, they did not command an obvious following. The PKK began as a Marxist-Leninist party which, in true Leninist fashion, sees itself as the uncompromising front guard. In 1984, as construction works for the Atatürk Dam got under

way, the PKK staged violent attacks on military but also civilian targets. The guerrilla war also included attacks on the Atatürk dam, the works for which had commenced a year earlier. Reportedly 1100 vehicles and pieces of working machinery were destroyed (P. Williams 2003). While the PKK did not manage to stop construction works, slowing down development inevitably drove up the costs of the project.

These attacks gave a face to the culturally fragmented and socially incohesive Kurds. Thus the Turkish competed for control with the PKK in the Kurdish-dominated areas, while the domestic war reduced a multitude of identities to 'friend' and 'foe'. The uprising again sparked ruthless response from the Turkish armed forces as well as paramilitary death squads (revealed in a parliamentary investigation in 1996). Both the Turkish Army and the PKK targeted the villages with intimidation, the former to smoke out insurgents from villages and forests, the latter to ensure allegiance to their cause.

When the army appointed ´village guards´ who were left with no choice: if they refused, they were suspected of PKK sympathies, but if they later proposed to step down, PKK would be unforgiving. Caught between a rock and a hard place, tens of thousands fled the area to the big cities: Diyarnakir, Ankara, or left for Western Europe.

President Turgut Özal however saw the GAP project as an opportunity to integrate the Kurdish minority with economic incentives. Özal is part-Kurdish himself and after coming to power after dictatorship as Prime Minister in 1983 and President in 1989, on a platform of political and economic liberalisation, he eased the authoritarian legislation by enacting Kurd-friendlier legislation in 1991, and accepting the European Court of Human Rights and anti-torture legislation (Jacoby, 2005). While the celebration of Newroz, Kurdish New year in 1992 was repressed, Turkey adopted it in 1996 as a national holiday (Jongerden *et al.,* 1997).

When Özal became President in 1989, his vision one of integrating the Kurds and hydraulic development was reflected in the programme's expansion beyond agriculture and energy.

The GAP infrastructural plan thus also served a political ideal. Like the TVA model became a weapon in the fight against Communism in the Cold War, modernising the 'backward' Southeast was also hoped to counter the allure of Islamism for the poor in a constitutionally secular state. Even today, the average income in Ankara is still many times that in Anatolia. The Guneydogu Anadolu Projesi, more conveniently known internationally as the Greater Anatolia Project (GAP), is one instrument aiming to right the balance between core and periphery. The idea was that once wealth came to the Southeast, the locals would be less likely to provide sanctuary to the Kurdish Workers' Party.

Economic development should also attract Turks from other regions, encouraging ethnic assimilation in the Kurdish-inhabited regions. Hydro-powered development seemed a peaceful way to integrate ('de-other') the poor Southeast, to prevent immiseration and secessionist and Islamic fundamentalist drives.

In Turkey, landowners, industry and army could subscribe to a hydraulic mission. But from the early 1990s on, GAP dams officially became an instrument in the 'fight against terrorism' (Özok, 2005)[96]. The internal war against the separatist movement was stepped up after a Kurdish *intifada* in the early nineties. - not only developmentally but also physically. State officials argue that 'terrorists will no longer be able to easily cross from one region to the other [Mardin and Sirnak] due to the dams'. This should help limit 'terrorist activities' in the region (Cerem, 2006). The war against Iraq had left Saddam untouched, but created a Kurdish zone in the north which gave they PKK a springboard for its attacks. Turkey's war with the PKK continued, but so did Kurdish support for its increasingly nationalist rather than marxist ideology. Kurdish parties in Turkish parliament were forced to the denounce PKK, or closed down if they didn't. Özal however saw the continuing war as an obstacle to Turkey's regional ambitions; apparently in 1993 Özal, the

PKK and other Kurdish leaders seemed close to coming to an understanding along the lines of a federation, and the PKK felt strong enough to call a unilateral ceasefire to end the *intifada* (Jongerden *et al.,* 1997). But then the President passed away, and his successor Demirel chose to reinforce the violence against insurgents.

> 'Ankara has continued to devote enormous human and material resources to this conflict which costs approximately 3 percent of Turkey's GNP [Gross National Product] ($12.5 billion in 1994) and for which military expenses absorb 45 percent of the national budget and some 250,000 troops and other security forces' (Galetti, 1999).

The Turkish army employed a slash-and-burn-tactic to root out settlements suspected of collaborating with the militant PKK. The 'soft power' of hydraulic development continues to be underpinned by the deployment of 'hard power' in a campaign to crush separatism (*repression* strategy). Both aspects of the strategy caused mass displacement – many Kurdish villages were either uprooted to make space for dams, or uprooted of the city of Diyarbakir, and, further afield, Ankara as well as Kurdish migration rates into Western Europe, for refusing to take distance from the PKK.

As we saw in the conceptual introduction, securitisation of an issue-area or domain may serve as an expedient political strategy to add weight to the mobilisation of resources, while pushing out the political process of deliberation and choice. The state of emergency is the ultimate security closure. Meanwhile the PKK have equally asserted Kurdish unity by force and intimidation, which makes criticism and defection a capital offence. This mutually hardened stance stands in the way of the vision of peaceful integration President Özal had harboured. The conflict made South-east Anatolia a *de facto* military occupation zone.

TABLE 3.1   GAP Project chronology

	Domestic chronology	Basin chronology
1922	End of Ottoman Empire; Turkish republic created	
1966		*ruling Ba'ath parties in Syria and Iraq fall out with each other*
1975		*Syria and Iraq almost at war over water*
1977	Formulation of GAP	
1982		*Syria and Iraq sever ties*
1984	Start of Kurdish uprising in Siirt	
1987	Turkey promises Syria minimum Euphrates discharge	
1989	Reformulation of GAP	
1994	Privatisation of Turkish water law	
1991	Turkey fills Atatürk dam, Euphrates flow impeded for 1 month	
1998		*- Near war between Turkey and Syria* *- PKK leader Öcalan extradited*
1999	International campaign against Iliszu	
2000	Filling of Birecik dam (under construction from 1996); Bilkes submerged	
2001	Britain refuses export credit for Ilısu Dam	
2002	Swiss USB Bank pulls out	
2006	Restart of Ilısu dam (August)	*Iraq and Syria: rapprochement*

3.2.4 DOWNSTREAM FEAR OF FLOODS

The Turkish hydraulic mission does not only impact on the country's relations with the Southeast, but also with downstream neighbours. The Turkish state saw GAP as a way of asserting riparian rights in the absence of a basin treaty (Brismar, 2002). Downstream states in turn have loudly complained that GAP is a water control strategy using physical control of the flow for political gain.

Downstream states usually develop water infrastructure earlier than upstreamers, and the Euphrates is no exception. Flood control of course brings many benefits: regulated water supply, agrarian and industrial development and control of territory. But especially in Iraq, rivers have historically brought flood distress and inspired Great Flood accounts like Gilgamesh as well as the biblical deluge recounted in the book of Genesis. This especially concerns the river Trogis: snowmelt from the Taurus and, via its Zap tributaries, Zagros Mountains add their waters causing often destructive flooding.

In ancient Mesopotamia, the Spring floods were a source of acute fear each year; in recent times the 1954 flood raised the Tigris by 65 cm and ravaged the capital, Baghad. In response, Iraq built the ar-Ramadi and Sāmarrā' barrages in the 1950s, to divert the floodwaters into Lake Habbaniyah and the Tharthar depression in central Iraq. Even larger works carried out on the Tigris tributaries Zap and Diyala further domesticated the Tigris, though the last major Tigris flood is as recent as 1988.

Second off the block in building dams was Syria, which is upstream to Iraq on the Euphrates (Syria only has 44 km of the Tigris). The Cold War provided an opportunity for Syria to get its Tabqa (or at-Thawrah) Dam built between 1966 and 1973. This reduced flood risk for Iraq, but also the much-needed irrigation water and silt (and, less welcome, salt). Moreover Syria filled its Tabqa dam reservoir only briefly after Turkey filled its Keban dam in a particularly dry year (Bari, 1977). Iraq claimed the dam's impoundment adversely affected 3 million Iraqi farmers (Starr, 1991). As a result, in 1975, armed forces of both countries were mobilised at the border. The Arab League had to mediate.

Ever since Syria and Iraq's wings of the Ba'ath ('Renaissance') party split, relations between the two countries have been notoriously bad, and the 1975 clash was the closest the Euphrates riparian has come to violence over water. However, a common cause against a third party can make enemies temporarily set aside their differences and create a joint front. The GAP mega-project provided the occasion for joining forces and delivering fierce protests and threat to Turkey each time a dam is announced.

The fact that Turkey in principle has the ability to cut off Euphrates water for six months has been a source of acute discomfort for downstream countries. But while the 'water wars' literature sees resource scarcity as the driver for warfare, water is not particularly scarce in the Euphrates-Tigris catchment. Malin Falkenmark´s ´water barrier´ is a rule of thumb that postulates that a country that has less than 1800 m^3 per person per year is water-stressed and 1000 is water poor. Turkey and Syria are nearing the 1800 zone.[97] Iraq is way above that.

It is claimed that since 1970, the flow leaving the Turkish borders has diminished by half. Frequently, a GAP-induced 40% reduction is predicted for Syria and up to 80% less for Iraq; although this latter figure would be a cumulative effect of Turkish and Syrian dam projects (estimates differ, see e.g. Shapland, 1997). There are reports that two smaller Syrian rivers have run dry as a result of the reduced influx. But more important than the real impact is the *potential* to give the water tap a twist in either direction. If all present dams in the catchment were to be closed all at the same time the entire volume of the rivers could now be stored many times over. This argument has repeatedly been voiced for the Euphrates[98]. Most of the megadams have so far been realised on the Euphrates (in Turkish: Firat): so far, Turkey has laid relatively limited claim

to its sister river, the Tigris (Dicle). The final series of GAP dams will significantly enclose the river Tigris however.

A simple sum reveals why the downstream riparians are so upset. The *Ilısu* storage lake will have a total storage capacity of just under 10.5 billion cubic meters and an operating capacity of 7.5 billion m[3]. Normally, that would leave a buffer capacity of 3 billion cubic metres. As the average annual inflow of the Tigris is 15 billion m[3] the reservoir will account for half the total annual flow[99]. Opponents fear that the spare capacity would enable a malevolent Turkey to arrest the river influx for some additional months, such that not a drop of Tigris water would flow into Syria and Iraq (Berlin Declaration, 1999). While the majority of the catchment is in Iraq, where the two rivers merge and drain into the Persian Gulf through the Shatt al-Arab (disputed by Iran), the river receives 95% of its precipitation within Turkish territory, and the artesian springs just across the Syrian border are fed by rain infiltrated in Turkish soil before it works its way down to Syria[100]. But contrary to the Euphrates, Tigris tributaries also flow into Iraq, so Iraq is not wholly dependent on that river (Beaumont, 1998) The reduced amount of freshwater allowed to pass the border however would impair the diluting capacity to purify the wastewater flowing from the region's major cities and agricultural return flow. Baghdad, for its part, fears its flow to be contaminated by agricultural chemicals and pesticides. Another worry is that coarse sediment deposits may increase downstream flood levels (Williams and Associates, 2001).

Not just closing but also the sudden opening of the floodgates would be disastrous. While admittedly rare, the water weapon has been known to be deployed in the basin. In 689 B.C. Sennacherib the Assyria dammed the Euphrates upstream from Baghdad, only to destroy it after sufficient water had assembled behind the dam. The sudden flood wave flooded the Mesopotamian capital and won Sennacherib the day. According to a Pentagon statement, Iraq itself used strategic flooding of the Tigris to stop Iranian advances in the 1980s (CNN, 2003)[101] and indeed there were fears that the river would be used as a defence against the allied invasion in 2003[102]. A dam can even break accidentally: half a million citizens in Mosul and Baghdad are potentially at risk from a flood wave if the dam break at Mosul. The dam on the Tigris, built in 1984, was 'fundamentally flawed' to begin with because it is built on unstable bedrock. Currently it is in a crumbling state according to the US Corps of Engineers and, according to the Special Inspector General for Iraq Reconstruction (SIGIR), inexpertly repaired in an American project (*Independent,* 8 August 2007).[103] Such knowledge, apparently kept quiet so as not to cause a panic[104] teaches the downstream riparians some realism and allows upstream Turkey to be laconic over even the gravest threats from its co-riparians.

Turkish unilateral stopping of the Euphrates flow for a full month to fill the storage lake for the huge *Atatürk Dam* had created an alliance of convenience between Syria and Iraq. When Syria joined the anti-Saddam coalition in the Gulf War, the truce with Iraq fell apart and the two countries officially were not been on speaking terms since but after a five-day meeting in 1996 the states decided jointly to dispatch threatening letters to companies involved in building the *Birecik* dam[105]. When the Ilısu dam, a hydropower and irrigation project near Dargecit, 45 km from the Syrian border, and its smaller sister dam, Cizre (46m in height, 240MW in capacity) were mooted, Syria and Iraq again joined forces sending protest letters to funders (see below) and especially after Turkey concluded an alliance with Arab's, arch enemy Israel in 1997, mobilising the Arab League against the GAP. Turkey's upstream development caused the downstream riparians to be sufficiently ´realist´ to agree in 1996 on a percentage distribution of whatever Turkey leaves them: 42% for Syria and 58% for Iraq.

The historic flow before Turkey started its project is calculated at 1,000 cubic meters per second (m[3]/sec) at the border with Syria. The Arab states argue that since there are three states sharing the river's flow, each is entitled to one-third, giving the two Arab states a total of around 667 m[3]/sec (Gruen, 2004). Turkey could not agree with that amount, but signed a protocol with

Syria in 1987 promising to release an average of 500 m³/s, which is about half the river flow, across the Turkish/Syrian border, and has not flagrantly defaulted. 1991, the dry year in which Turkey filled lake Atatürk, was a low flow year anyway (190 m³/s). To honour its obligation Turkey did supplement the flow later. The Birecik dam (see below) was filled in another dry period, 1999 until 2001. When 2000 carried an extremely low flow of.75 m³/s, Turkey made endeavours to let through 400 m³ (Brismar, 2002). But the Director of the General Directorate of State Hydraulic Works commented one year later: 'I cannot make the rain' (q. in Zawahri, forthcoming).

TABLE 3.2   Overview of dams along the Euphrates and Tigris

Turkey	Syria	Iraq
Euphrates: Keban Karkaya Atatürk Birecik Karkamis Batman *Tigris*: Devegecidi Cag-cag, Dicle, Goksu, and Kralkizi dams Ilısu	Al-Baath Tishrine Tabqa Upper Khabur	Al Hindiyah Al Qadisiyah Fallujah Ramadi- Habbaniyah

Source: Water Resources Development, 2004.

Turkey can thus claim to have acted in good faith not to harm downstream interests. But given the symbolic value of many securitising moves in this area, I propose to see the security speech act within the wider context of *strategic representation* of danger. *Possibilities* and fears rather than facts on the ground appear to play an important role in this game.

GAP's downstream opponents especially criticise Turkey's arrogance in positing its self-interest as the regional common good without conferring with its neighbours. In 1989, the two downstreamers had pleaded for Turkey to fill the Atatürk Dam without stopping the river, during the trilateral Joint Technical Committee called by Turkey. The Turks saw the Committee as a way to inform the others rather than to negotiate, and declared the decision was final and non-negotiable (Zawahri, forthcoming). But in 1990 President Özal' claimed that the Euphrates-Tigris does not have to be shared because it is a 'Turkish river' (cited e.g in Allan, 1995). Declaring the entire Euphrates-Tigris basin a single Turkish river pulled off the dazzling feat of declaring sovereignty over the entire basin in the name of *integrated management*. This way, Turkey resists internationalisation of the water issue, claiming the water is safest in Turkish hands.

Iraq and Syria furthermore claim a breach of international law and riparian water rights. This is not a particularly strong hand. With some imagination a breach of a 1946 Turco-Syrian treaty stipulating consultation between riparians could be invoked[106] (Gruen, 2000) as well as a Turkish-Iraqi Protocol signed that same year which allowed Iraq to construct hydrological infrastructure and meteorological stations along the rivers inside Turkey 'to prevent downriver flooding and, thus, benefit Iraq' (El-Fadel *et al.*, 2002). But international law only provides only cold comfort for water plaintiffs - there are no widely shared and enforced principles governing international rivers. Iraq may insist on the international law doctrine of absolute territorial integrity, stipulating that no riparian is allowed to impair the quality and quantity of the water resources flowing within

its territory. But Turkey can with equal vigour juxtapose the doctrine of unlimited territorial sovereignty, also known as the Harmon doctrine: each state can treat the water within its boundaries any which way it likes.

Due to the weakness of international water law, Turkey could (along with China and Burundi) refuse signing the 1997 UN treaty on non-navigable watercourses claiming the treaty grants downstream states excessive rights without immediate - if it also does nothing for its international PR.[107]

The Kurdish card

As a downstreamer to Turkey, Syria protests against each new Turkish-built dam, complaining of failed harvests and interrupted water services in Damascus as a result of interrupted and reduced flows. Moreover, Syria itself has many historic issues with Turkey, including the loss of the province of Alexandretta (or, from a Turkish perspective, Hatay), which was given to Turkey by its colonial French rulers[108] Downstream Syria has long betted on the Kurdish card, allowing the Kurdish militants to train in the Syrian-occupied Biqa'a valley in Lebanon, as well as the extreme leftist Turkish urban guerrilla Devsol and other groups. When Turkey protested, Syria moved the Kurds to northern Iran, and when in early 1996 Turkey intercepted five Iranian lorries carrying arms, which Turkey claims were destined for the PKK, another diplomatic row ensued.

The line was toed when on 5 October 1998, Turkish troops were mobilised at the Syrian border in Hatay, and President Demirel told Syria to disband the camps, warning it would 'take any measures it deemed necessary' and refused to meet Egyptian President Hosni Mubarak, who had offered mediation between Syria and Turkey.[109] Still, Mubarak's effort paid off: when Syria arrested five PKK activists and expelled Abdullah Öcalan, this signposted the end of the ´Kurdish card´. There was a strong expectation that Turkey would release more Euphrates water as a *quid pro quo*, although no firm agreement was signed. However, after the signing of the Adana accords in 1998, the two countries started to co-operate, including technical exchange of the Turkish Gap and Syrian GOLD (General Organization for. Land Development) project. To the chagrin of the Turkish government, though, the Kurdish issue keeps figuring prominently in international debates over hydraulic projects. International activists picked up on these issues, and as we shall see in Section 3, found a point of entrance to put the Kurdish-hydraulic link on the agenda in the late 1990s, when they found a convenient point of entrance to link a strategy to: funding dams.

3.3   THE ILISU DISPUTE

3.3.1 *WATER PRIVATISATION: A WINDOW OF OPPORTUNITY?*

The international overlay on regional security dynamics is notable where project funding is concerned. To fund such an enormous project, a continuous stream of funds is needed. Finding external money for the GAP project has been a problem for the Turkish government. From Day One a key external player, the World Bank (IBRD), has been unwilling to support a regionally controversial dam. This Section looks into the institutional transition Turkey made in the 1990s to access international funds in spite of World Bank objections. For this, Turkey needed to project a vision of GAP bringing mutual hydraulic benefit to an international audience. Instead, privatisation preluded a heated internationalised dispute over the Izmit and Birecik dams and, more recently and intensely, Ilısu Dams, the first major Turkish dam on the Tigris.

As the most important donor to the region by far the World Bank has proved highly effective in shaping economic policies in recipient states. Its veto on regionally sensitive projects can kill off a controversial water project for a considerable time[110]. Also the Bank now would like to see water-intensive agriculture curbed in favour of industry and urban supply. However in denying its

flow of funds, the Bank proves unable to kill off a major project when the initiator is determined enough to find funds elsewhere. Although the World Bank formally decided not to fund GAP projects in 1984, the Turks apparently never even formally applied for Bank backing, sensing the Bank would show itself highly sensitive to protestations on the part of co-riparians Syria and Iraq.

The GAP project thus started on a self-contained basis. But an inflation-ridden economy groaned under the development effort, soon coupled with the cost of military engagement with the PKK. The lack of multilateral co-operation made itself felt in ever more painful ways when in the early nineties projects started to fall behind schedule further and further. More and more, the GAP seemed to look like the famed 'white elephant': the costly development project that never materialises. The fact that after a temporary lull, the final stage of the Greater Anatolia Project has now gathered steam again, is due to a radical institutional move: privatisation. As early as in 1987 the means to fund the *Izmit dam* had run out. Izmit is close to Turkey's capital metropolis, Istanbul, and the project was to provide water for homes and industry. At the instigation of President Özal, a private consortium was created, Izmit Su, to complete the works. Stock holders are the municipality of Izmit, the Japanese conglomerates Sumitomo and Mitsui, Thames Water of Britain and two local companies, Gama and Guris. Funders were British, German and Japanese. Thames Water was contracted under a Build, Operate and Transfer scheme to run the utility for 15 years before returning it to the municipality of Izmit.

The Government Audit Department, Sayistay, in 1999-2000 issued a detailed report saying that, 'from beginning to end, "the project was full of violations of laws."' In 2002, after the contract expired, the Turkish Court of Accounts found irregularities in the contract that made the water too expensive.[111]

A key cost factor of project development involved the fee of Turkish lawyers struggling to legally enable the project. While private investment was possible under the 1984 Build-Operate-Transfer law, legislative frame and infrastructure were simply not in place[112]. While privatisation had been advocated by several Turkish governments since the 1950s, it is hardly compatible with the prevailing *dirigisme*. Privatisation means an important erosion in the state's primacy over public services. The privatisation law, opposed by the secular and religious right, was finally pushed through parliament in November 1994 by Tansu Ciller, well-timed to coincide with an important Galatasaray-Barcelona football match keeping many MPs glued to the TV screen (Zürcher, 1998). As a result, the Izmit project (dam, storage lake, sewage works and water utility) was ready to go onstream ten years after its abortive start.

Faced with an acute shortage of project funds for the remainder of the GAP project, Turkey needed to co-opt the global jet stream of liberalisation and privatisation in the water sector. As we shall see in the next Section, however, privatisation exposed donors and guarantors to activist NGO strategy calling them to account for their corporate governance practice. The Birecik and Ilısu Dams were the logical targets for this thrust.

3.3.2 LOCATING THE ETHICS GAP: EXPORT CREDITS VS. HUMAN RIGHTS

Given the ritualistic aspect of mudslinging every time a new dam comes onstream, the controversies over Birecik and Ilısu are unsurprising. But the privatisation in the Turkish water sector has brought new actors into play. Until 1994 conflicts over the Euphrates and Tigris remained within a neat Realist framework of rivalry between states. DSI decision-making on the llisu dam likewise appears to have been made in ´closed´ mode. the ten alternative dam sites were not subjected to outside scrutiny[113] and competition - the hydro-electricity dam was put to tender for Build-Operate-Transfer but when no 'suitable' bid emerged, the project was awarded to a consortium (Cerem, 2006).

However, the privatisation of the Turkish water sector brought new transnational actors into play: transnational companies (TNCs), but also hot on their heels, International Non-

Governmental Organisations (INGOs) as transnational political actors. The campaign over the human rights situation in the South East and the opposition from co-riparians targeted the Achilles heel of a project of this size and scale: funding.

Private	TNCs: ABB, Balfour Beatty, Sulzer Hydro, Skanska, Impreglo; major banks back it up
Public	Governments; donor governments insure export (political) risk
Civil society	NGOs and INGOs: start campaigning.

For construction companies, the projects do not just provide opportunity but for several of them it provides much-needed economic security: long-term income in a competitive market. However, participation in GAP also carried considerable economic and political risk for them - not just by investing in a controversial project in a country that was effectively still at war with itself, but also the potential loss of its hardware or people due to attack. An investment in Turkey's Southeast carries considerable physical, political and economic risk and international companies are loath to carry all that risk themselves. Given the securitised status of the project area, an export credit is no luxury. Governments of countries where civil engineering is an important export sector have so far, turned out surprisingly eager to provide export credits. The contractors sought to alleviate this risk by securing export credits from their governments from the export credit agencies (ECAs) of Austria, Germany, Italy, Japan, Portugal, Sweden, Switzerland, the UK, and the US in Summer 1998.

Export credits were needed to secure the participation of British construction company Balfour Beatty, another important international player which had been approached by the construiction giant ABB to subcontract the civil engineering works while ABB would take care of the electrical engineering and Sulzer Escher Wyss to lead the construction consortium to realize the dam, the storage lake and hydropower station - further enterprises involved are Impreglio (Italy), Skanska (Sweden), and the Turkish companies Nurol, Kiska and Tekfen. The six turbines and generators will have a total capacity of 1200 MW and an average productivity of 3800 GWh per year.

The international private involvement exposed the companies and their governmental backers to angry Syrian letters and writs against foreign investors and constructors involved in GAP, Syria repeatedly claimed Turkish interventions damaged Syrian agriculture and water supply. Thus, when Ilısu was approved, Syria filed compensation claims from constructing and funding companies, including Chase Manhattan Bank, and threatened to blacklist/ boycott them until a trilateral agreement was signed. Such downstream vocal resistance greets the start of any new Turkish dam project and thus was perhaps expected, but the guaranteeing governments had not counted on the GAP uniting Syria and Iraq (Gulf War adversaries) and NGOs in an alliance of convenience over human rights.

3.4   CULTURAL HERITAGE: THE FLOODING OF BELKIS AND HASANKEYF

As the funding for Ilısu Dam became a news item, the *Bireck* dam, just north of the Syrian border also was under fire. Started in April 1996 and completed in 2002, its reservoir necessitated the flooding of the 2000 year-old ancient Roman city of Zeugma in 2000. Labelling Zeugma a 'second Pompeii', opponents not just saw this flooding as a tragedy for local history but also for the world's cultural heritage. The GAP administration played down the issue noting that the city centre and hundreds of historic villas remain untouched: 'Turkey has so many [historic] resources that a single one cannot matter' when the cradle of civilisation gives way to a new kind of

civilisation (GAP Administration q. in Shoup, 2006)[114]. An indignant editorial on the Birecik flooding in the *New York Times* was reprinted in Turkey and triggered a petition from Turkish archaeologists and architects. A stunning mosaic was salvaged after a $5 million donation from American billionaire David Packard (Shoup, 2006). It is not that the Turks have no sense of history. Turkey has sought to salvage the cultural richness in thousands of important archaeological sites in Anatolia threatened by dam construction. But 4 - 6,500 people in Belkis village and others in Sanliurfa, Gaziantep and Adiyaman Provinces were not so lucky, they were displaced to make room for Birecik.

For the *Ilısu* hydropower project, the lower reaches of the coastal town of Hasankeyf (Hisn Kaifã), 36 km from Batman, 203 km east of Diyarbakir, will need to disappear to make the Turkish dream a reality. Eighty-one other heritage sites are similarly facing inundation, including several holy Muslim and Christian holy sites that are still in use today. Said to be a late Assyrian settlement dating back from the 7th century B.C. and a node of the Silk Road in the Middle Ages, Hasankeyf is known as the 'Efes (the Ephesus of the New Testament) of the East'[115]. It occupied a strategic position as a fortified castle, controlling the caravan route from Diyarbakir to Mosul in Iraq. But because the whole region is so rich in historic architecture (Diyarbakir, Mardin, Kızıltepe), Hasankeyf did not command much interest until a French historian published on it in the 1940s (Meinecke, 1996)[116].

Hasankeyf has long been a neglected, crumbling[117] open-air 'museum' with remnants of many civilisations. In 1969 a study of Hasankeyf was made and in 1978 Turkey´s Culture Ministry pledged full archaeological protection to the town. In 1981 the site was listed among 22 declared first-class cultural heritage sites. The year before however, in 1980, an international consortium had been commissioned to draw up a feasibility report for the Ilısu hydroelectricity project and in 1982 the Ilısu dam plan was ready, which included the submersion of Hasankeyf.

Naturally, Hasankeyf's countless caves were first to disappear under reservoir level. The biggest stone bridge of the Middle Ages built by the Seljuks and the tomb of Zeynel Bey will be next to go under (Sener, 2004). Other threatened heritage is the first minting factory, the medieval Koc, and Sultan Süleyman [Ulu / El Rizk] mosque. In 1998 the Hydraulic State Works (DSI), which comes under the Ministry of Mining and Natural Resources, contracted archaeologists from TACDAM (Centre for Research and Assessment of Historic Environment) at Middle East Technology University, Ankara to study the transferability of Hasankeyf's cultural heritage. According to Ronayne (2005), DSI cancelled its contract with TACDAM over 'corruption and incompetence'.

Almost US$1 million is now spent to restore the most attractive (seaside) part of it for tourism, and US$100 million will now be set aside for moving the most important cultural monuments.[118] But archaeologists point out that while Hasankeyf is in the spotlight, the dam will submerge 280 other historic places, including several holy Muslim and Christian holy sites that are still in use today. Only a few have been researched (Shoup, 2006).

Although the mayor of Hasankeyf moved into a limestone cave in protest against their inundation the cave dwellers of Zagora had already been resettled in the 1970s (Outshoorn, 2006)[119]. But the present-day citizens of Hasankeyf town showed themselves unwilling to move. The BBC noted that 'many of the Kurds say that Hasankeyf is their last stand, the last remnant of what is left of any Kurdish identity and dignity'[120]. Journalists collected dramatic quotes such as 'My family has been living here for 450 years.... they want to extinguish the culture of a thousand years for the sake of one burning light bulb' (in Shoup, 2006). But Balfour Beatty director Sloane however noted that Hasankeyf was abandoned after the First World War and only re-occupied in the 1960s (q. in Shoup, 2006).

International Protest

An ongoing campaign against large infrastructure projects had become successful in the 1990s. Local protest against dams like Arun in Nepal and Narmada (Bidaseca, 2004) was amplified to a

global audience by an international NGO lobby, making large donors increasingly uneasy about funding. In fact when a Swiss consortium won the Ilısu contract in 1996, it not only found the Berne Declaration (*Erklärung von Bern*) breathing down its neck, but a well-orchestrated protest on the part of a European NGO coalition.

The Bundesrat, to which the Swiss central bank USB is accountable, justified its export risk guarantee go-ahead for 470 million Swiss francs with a view to new Swiss jobs (1200 full-time man years) (Bosshard, 1999), Turkish development, and Turkish promises to look into expected negative side effects including forced resettlements, conflict over water rights with the downstream riparians, threatened cultural heritage, and malaria vectors associated with stagnant water in a storage lake. The Swiss government in 1998 attached to its export credit (also covering a project in Ankara) the condition that an independent monitoring mechanism would be established.

Casting the GAP flooding and resettlement as a human rights violation struck a chord in Europe, leading to parliamentary questions in Germany and Switzerland. Nevertheless, by 1999 the anti-Turkish dam campaign so far had not achieved the hoped-for resonance. Birecik had acquired export credit without much trouble, and it looked like Ilısu would get the same easy ride. The British Department of Trade and Industry (DTI) was 'minded' to issue a 200mn-pound export credit to the project leader, Turkey's State Hydraulic Works department (DSI) in 1999. Bemusingly, DTI's Export Credit Guarantee Department (ECGD) which governs export credits, was ready to defend the project as a fine example of its ethical policy, claiming it would contribute to Middle East peace (*Guardian*, 1 March 99). But the agency had failed to confer with the Foreign and Commonwealth Office (FCO) about the diplomatic consequences of such a decision.

However, British water companies were especially vulnerable to negative publicity, Biwater having been embroiled in scandal over the Pergau Dam in Malaysia, and Balfour Beatty in the Lesotho Highlands Project, both over corruption (1998). Thames Water's BOT contract for Izmit had raised questions and Watchdog organisations such as PSIRU at Greenwich University in London, duly noted that the Export Credit Guarantee Department still had no ethical or environmental code governing those guarantees (it developed Business Principles in 2000).[121]

In Britain the Ilısu Dam Campaign was spearheaded by Friends of the Earth, for whom the project looked a choice opportunity to mobilise its political clout. Opposing the Ilısu dam as a symbol of unethical British investment. Friends of the Earth and the Kurdish Human Rights Project (KHRP) may have judged the general public to be increasingly blasé over issues of *environmental* quality[122] and *cultural* heritage, which had not grabbed many headlines of late. Likewise, NGOs are unlikely ever to be able to win the day claiming the dams are not *economic*. By recasting the issue as a *human rights* issue, they could play at a concern which to many people is an absolute, existential value at the individual and group level. The repression of Kurdish identity as a way of extending Turkish control was played by the coalition against the Ilısu Dam on a *human* as well as *cultural* rights platform. This proved instrumental in strengthening the international anti-GAP coalition on a platform that also drew on environmental issues.

The opponents´ discourse was at times heavy-handed. Activist archaeologist Maggie Ronayne of Trinity College in Galway, Ireland called the project a weapon of "mass cultural destruction" while George Monbiot, environmental journalist with the British *Guardian* newspaper and Visiting Professor at Bristol University talked of 'ethnic cleansing'[123] echoed by human rights organisation Göc-Der: 'If you cut down a tree or kill a culture, that's war' (q. in Shoup, 2006: 250).

The left-leaning British media proved very willing to lend their front pages to a more emotive frame. While Turkey and the UK foreign office advanced the project as promoting regional peace, NGO and sympathetic environmental journalists like Fred Pearce and George Monbiot made it sound plausible that the project in fact would spark a 'water war' between the basin states (*Guardian,* 1999, the *Independent,* 1999, see also KHRP)[124]. A water war proved a much more

effective discursive 'spin' than cultural, ecological or economic arguments. When the flak became too vehement, the Trade and Industry minister, Brian Wilson, sought to reassure worried Liberal Democrats in the House of Commons that no final decision had been taken. The affair was painful to the Labour government which sought to set itself apart from its Conservative predecessor, which some four years before was embarrassed by a big dam project in Malaysia.[125]

When questions were raised in the House of Commons, claiming the Ilısu's 'security implications' could extend far beyond Turkey's borders, and could affect our security interests as a member of NATO and Turkey's future in the EU'[126] the Blair government decided to wash its hands off the project. Hamilton (2003) argues that the desire not to upset regional power balances may well have incited British withdrawal from Ilısu.

Project Shelved?

Activists no doubt hoped that stricter conditions from project backers would mean the end of the project. Turkey however went along with opening up the project to international and local scrutiny and environmental accountability. This promoted an already ongoing project redefinition process. While GAP started in the late 1970 with the intention of reforming the socio-economic situation in the most underdeveloped Turkish region, the project's objectives have broadened quite a lot in response to recurring criticism. In 1989, the Turkish government commissioned a Turkish-Japanese consortium to draw up a GAP Master Plan and established the South-eastern Anatolia Project Regional Development Administration (GAP-RDA). Headed by the eloquent American-trained engineer Olcay Ünver, many 'enlightened' modifications were made, including socio-economic, environmental, educational and participatory facilities. Representative reforms included the establishment of Water Users Associations with farmer representation and decentralisation of decision-making to mayoral level. GAP administration prides itself on having turned around from a 'hydraulic mission-age' blueprint to a leading example of participatory Integrated Water Resource Management, what it calls a 'human centred development project'. Turkey now presents GAP as a socially responsible, integrated water management project (Kibaroğlu, 2002). As it were, this evidenced another 'passive revolution'[127] in response to prevailing demands at the global level, echoing emerging norms of 'good governance'. In the Spring of 2000 GAP, in response to many criticisms, was reviewed again (GAP RDA, 2001)[128]. The GAP Master Plan was the outcome of a ´participatory planning process´, involving groups in such specific fields as rural development plans, social planning, economic planning, environment and infrastructure´ (GAP RDA, 2001: 22). Consequently, the project won a Millennium Award from the International Water Research Association.

In this light, donor conditions such as a new Resettlement Action Plan (RAP) and an Environmental Impact Assessment by Environmental Resources Management (ERM) as part of the Project Implementation Plan must have seemed minor irritants. In Turkey, an EIA is only mandatory for plans drawn up after 1993, Ilısu escaped this obligation. But after the protests, an EIA got to be drafted in 2001 (Ilısu Engineering Group, 2001)[129]. The RAP was drawn up by Turkish consultants SEMOL following World Bank guidelines (Mohravardi, 1999). However project and resettlement information is not made available in Kurdish, and communication relied on word-of-mouth[130].

In July 2001, the UK Government's Export Credit Guarantee Department made the decision whether to provide £160 million backing for the project contingent on 'public comment' on the Environmental Impact Assessment report. This proved to be harder to swallow for the Turkish dignitaries. Among the submissions was that of a prominent lawyer, Mr Vefa. His submission to the ECGD, 'Legal Review of Ilısu (Hasankeyf) Dam and Evacuated Villages', was reportedly reprinted in a Turkish law paper and immediately triggered a lawsuit. Under the famous Section 159 of the Penal Code, Vefa was accused by the Public Prosecutor in March 2002 of 'overtly

insulting the moral integrity of the Government and the military and security forces.' (KHRP *et al.*, 2002).

The EIA did not secure access to credit guarantees for Ilısu, as one foreign partner after the other backed out. Skanska had already withdrawn in 2000, while ABB – which was leaving the hydroelectricity sector anyway - had ceded its involvement to French company Alstom. Together with Balfour Beatty, Impreglio withdrew in 2001 after their export credit backers backed out. In 2002, the main financial partner, Swiss UBS, decided to pull out too, after which funding for the project was as good as dead.[131]

This strong response over the ´water war´ argument is surprising as 2001/2002 was a period of thawing Turkey's relations with both the Kurds and downstream neighbours. After 1998, the mood among the basin riparians had changed perceptibly towards conciliation or peaceful co-existence. Relations between Syria and Turkey improved dramatically after the extradition of PKK leader Öcalan. This heralded what seems to be a more constructive era in which military and economic agreements were initiated between Turkey and Syria (MacQuarrie, 2004). In 2001, the GAP and the Syrian development project, GOLD, signed a GAP-GOLD agreement (Kibaroğlu, 2002). In 2002 the two countries shared a Training and Expertise exercise (Protocol of 2002) and embarked on Track-Two water cooperation initiatives initiated by former GAP boss Olcay Ünver seems to evidence that Turkey is willing to consult with its downstream neighbours. Also the PKK scaled down violent hostilities (until 2003) which raised hopes of lifting the state of emergency in the region.

The international backers pulling out only compounded Turkish financial worries, as the country faced another budget crisis in 2001, which made it difficult to go ahead with the envisaged expansion of the GAP programme (al-Nahkla, 200x). Still, the Turkish government was not letting go of its dam like that, and found new European partners who also could not turn such a large, attractive construction project down. After several years of standstill and studies for improvement, the Ilısu Dam project was quietly resurrected in 2005 when a new 14-member consortium including German, Swiss and Austrian companies formed.[132] Alstom (formerly part of ABB) again is involved, while Cengiz, Celikler and Lider Nurol are Turkish partners.

Continued protest

So far, reforms have failed to win friends downstream. The restart on the Tigris seems to have contributed to a recent rapprochement between Syria and Iraq on the Euphrates:

> 'In 2005 Iraqis and Syrians agreed to exert joint efforts to make Turkey fulfil [sic] earlier obligations regarding water allocation on the Euphrates, exchange information on hydrology and climatic changes. Syria consented to release more water for additional electricity production in Iraq (Mirkasymov, 2006)

The World Bank proved a perhaps unexpected ally for the anti-GAP coalition in lifting the resettlement issue on the international agenda. The alliance scored two important victories by enlisting World Bank experts to write critical report of the resettlement plan. In 2000, Ayşe Kudat, a Turkish sociologist who had worked for the World Bank, had written a critical report on resettlement (Kudat, 2000). In 2006 the Swiss NGO, Berne Declaration, scored another coup when they got the famous World Bank sociologist, Michael Cernea, to write a critical assessment of the new Resettlement Action Plan for Ilısu as updated by State Hydraulic Works (DSI) in July 2006, just before the restart of construction works, and the worrying record of earlier GAP resettlement (Cernea, 2006). That same month, at a low point in European-Turkish access negotiations, the European Court of Human Rights agreed in July 2006 to hear an application against the dam lodged by archaeologists, journalists and lawyers united in the Hasankeyf Volunteers Association, who say Hasankeyf must be preserved in its natural state.[133]

Turkish professionals also voiced criticism[134]. Local (Goc-Der) and international NGOs are keeping a close watch on proceedings, notably the Kurdish Human Rights Association, Friends of the Earth and German NGO WEED, which produces a critical weekly Ilısu update (www.Ilısu.org.uk). The international campaign against Ilısu has been revived, again concentrating on the flooding of Hasankeyf. Apart fom this predictable resistance, Turkey seems to foresee Kurdish violence against the dam as well, reportedly stationing 5,000 soldiers at Ilısu for the period of the construction works (*Firat*, February 2007).

Two weeks before Turkish and Syrian academics presented the nongovernmental ´Track Two´ initiative for closer cooperation at the Stockholm Water Week, construction began in August 2006 on Ilısu, if protested by 8,000 people including leaders of two political parties. Muharrem Dogan of The Motherland Party (ANAVATAN) proposed to lower the height of the dam to save part of the flooded area (470 instead of 510 meters). However the Minister for what is now the merged department of Culture and Tourism, Atilla Koc, made it clear Hasankeyf would not be saved: 'Hasankeyf is already gone, it's been erased from history', while DSI General Director Eroglu opined: 'this dam should have been built 30 years ago' (quoted by Shoup, 2006: 245).

That same month, a Swiss delegation visited the site to verify Turkey was complying with international standards before it would guarantee the US$250mn loan. In Febuary 2007, Turkey apparently issued a warning that all contracts would be called off if Germany, Switzerland and Austria refused to decide whether to issue export guarantees. But they did not, and the Turkish government has taken out a US$1.2 bn loan for the dam.[135] Ilısu is now due to be completed in 2014.

3.5   DISCUSSION

3.5.1   *BASIN REGIME: NOTHING EVER CHANGES?*

I have argued that Turkey's water strategy is bound up with its political strategy. Despite the war moves, it seems fair to say that the Euphrates tussle has essentially been political manoeuvring. In this sense, in spite of the apparent anarchy, a kind of regime, in the sense of patterned, predictable state behaviour (Puchala and Hopkins, 1987) can be said to be in place. The public posturing and linkage politics around GAP displays a strongly ritualistic pattern of near-wars followed by near- or placeholder agreements. For this, Turkey basically keeps pursuing the same multi-chessboard strategy at home and in the world, unperturbed by the changed dynamics around the 'balance-of-weakness' in the region.

The Turks are investing great effort into trying to convince others that this state of affairs is just, legitimate, even that its actions were clearly in the interests of the downstream actors as well. The Tigris is more flood prone than the Euphrates - snowmelt in March can cause torrential flooding in April, the harvest month, which necessitated early diking, canalisation and diversion works in Iraq[136] The Turkish dams regulate the hydrological regime so that they not only cushion the impact of floods but also improve the timing of the river regime to coincide with downstream agricultural needs. Dams will provide a cushion against droughts and premature flooding. Several dams are 'post-bay' dams to even out fluctuations upstream. Better timing would lead to more productive *downstream* farming as well. As Bilen notes (Bilen 1997 q. in P. Williams, 2003), massive hydropower, which in itself is not a consumptive use of water, limits irrigation and guarantees a downstream flow. This state of affairs creates a stability of expectations which can be seen as an *international public good*, though downstream neighbours do not usually like to see it this way. Indeed, as Kibaroğlu shows, throughout the GAP the states have worked together rather more than NGO material would lead us to believe. Technical teams on the Euphrates-Tigris have met on and off despite recurring political threats of military action, a pragmatic acceptance of the *faits accomplis* on the part of the downstream neighbours.

The snag is, of course, that Turkey has frequently denied its neighbours any real say in the regulatory decisions. In that sense, Turkey is exercising *de facto* dominance in a context of *de jure* equality. As a result, Turkish regulatory decisions such as the occasional arrest of the flow to impound reservoirs, have been perceived as unilateral and self-serving. Vis-à-vis its neighbours, Turkey has to act as a hegemon, that is, a 'primus inter pares'. Given the stability of expectations Turkey's primacy procures for the basin, Turkish hegemony may not be all bad for Syria, but the Syrians object to Turkey unilaterally setting the terms, as if the Ottoman Empire still existed. Iraq and, especially, Syria have made repeated, almost ritual threats (invariably answered by equally virulent language from Turkey) and used downstream strategies to counter Turkey's actions.

Overall, the recent initiatives seem to demonstrate a move towards a 'positive-sum' rather than distributive (zero-sum) power play. In this respect I agree to a degree with Ayşegül Kibaroğlu's analysis, if based on slightly different reasoning. Kibaroğlu (e.g. 1996, 2002) has argued there are unmistakable signs of *regime formation* in the Euphrates/Tigris. However, while there seems to be a movement from Realist going-it-alone to forms of co-operation, this new stable equilibrium remains within a context of hegemonic power relations. The Syrian government, having exhausted the leverage the Kurdish card procured them, has had to resign to Turkish primacy – since there is hardly question of equal power relations between the partners. If co-operation becomes more structural, as seems to be the case, Syria and Iraq lose their leeway for making strong stances.

Securitisation and the state of exceptionalism?

Turkey has sought to enhance its national security since the 1920s by laying great stress on *cultural* identity and integrity (the unitary state) as well as economic development (self-actualisation, opportunity-seeking), which in turn provides the government with greater legitimacy (*political* security). In crucial decisions, however, the government takes a backseat to the army, which sees itself as a guarantor of the Turkish national interest as a secular, modern state. After the 1960 *coup d'Etat*, the National Security Council (*Milli Gùvenlik Kurulu*, MGK) was established in 1961, which consist of the President, the Prime Minister, the head of intelligence the army Chief of Staffs and commanders of the military branches (Jongerden, 1994) and can overrule the government in issues of National Security. Until 2001, the Constitution required civilian authorities to prioritise its recommendations (Drorian, 2005: 264).

Turkey has NATO´s second largest army, which sees it as its role to safeguard both both external and internal security (Drorian, 2005: 262). Ataturk saw the army as the guardian of the ideals of the Turkish nation (ibid. 263).

At home, Turkey pursues a mix of coercive and consent-oriented *control* strategies – carrots and sticks. The hydraulic developmental strategy however has not been successful in co-opting the Kurdish Southeast, and the GAP has become associated with domestic war. The GAP administration's many reforms, including decentralisation and participation, has won it international plaudits, but at home the struggle goes on. As an instrument to achieve both economic growth and integration of the Kurdish minority, the Greater Anatolia Project is legitimised and elevated beyond the realm of debate and backed up with exceptional action - in Buzan *et al*'s (1998) terms, the project has become 'securitised'. The violent struggle with the PKK has put Southeast Anatolia under a regime of exceptionalism (the state of emergency). Dams have thus been planned and built in this securitised context, and therefore moved the decision-making process out of political debate.

Turkey investing billions into raising the standard of living seemed to promote control of the elusive Kurds. After Öcalan's extradition in 1998, relations with the Kurds seemed to herald a 'desecuritised' era in the basin (Table 3.3 below). Radical reforms of the GAP project suggest a shift away from the 'hydraulic mission, making the project more palatable to funders. But when

Kurdish incursions restarted in 2003, a repressive military strategy continued. The Turkish stance on the Kurds therefore remains two-pronged.

While securitisation excludes all alternatives, politicisation opens up the closure. An alliance of convenience saw its chance when Turkey's pressing funding problem was partly 'solved' by liberalising the water sector, Turkey's military must have dreaded ceding a degree of (temporary) loss of state autonomy over water resources to international companies (political insecurity). In the Ilısu controversy each actor group actor mounted different types of security strategies at different levels. An astute international campaign sought to get international backers to pull out of the Ilısu dam. For this they used heavy verbal artillery: the dam constituted a human rights violation and environmental and cultural disaster.

The Ilısu case seems an interesting example of active domain linkage. Having generated little resonance with economic or environmental arguments, the opposition to GAP made more successful moves into the cultural and military domains. I would argue that in each of these domains, moves and countermoves were made looking to dominate it (Table 3.4). Casting GAP as a *human rights* issue was countered when the Turkish initiators, sensing the change in international mood, pictured the project as essentially *humanitarian* and ecologically sound, that is, it sought to defeat the opposition in the same security domain. Likewise, while Turkish and British governments portrayed Ilısu as a project promoting peace, protesters presented the doom scenario of 'water wars'. It should be noted that in 2001, the water war argument had surprising *international* resonance despite the dramatically improved relations between Turkey and Syria and little evidence of worsening Turkish relations with Iraq. This shifted the debate in Europe into a different - military - league, which had just been moving towards a Turkish-initiated 'peace discourse' of stability and shared benefits. Whatever the rationale, the move was relatively successful, as the backers pulled out under pressure of a threat to their reputation.

Thus, security speech acts on all sides can be said to have played an important role in the ritual dances around dams. By successfully countering security with other absolutes, each camp could overrule the other's claim to monopoly on exceptionalism. So, in order to improve the political strategy, it seems the different domains have indeed been linked or relinked to domains where a more successful outcome was anticipated.

TABLE 3.3   Discursive framing moves and countermoves in different security domains

Type	MILITARY	SOCIO-CULTURAL	ENVIRONMENTAL
Turkey's move	GAP is a peace project	Humanitarian project; Turkish integration	Project enhances environment in barren region
Opposition countermove	Project precipitates war	Human rights offence; project is part of Kurdish suppression	Project destroys environment; brings health hazards

TABLE 3.4   Control chronology: Type of strategies at multiple levels; challenges in italics

Level: →	National	Basin	Regional	Global
Control strategy by episode	Resource control	Regime formation	Short-term setbacks, Long-term aspiration	Overcoming Challenges and Constraints
until 1998	- Hydraulic mission - Suppression of *secessionism* - economic integration of Kurds.	- Hegemonic behaviour: Unilateral action; near-wars threats and near-treaties - *Syria and Iraq: intermittent counter-alliances*	- Seeking sphere of influence in Central Asia - Seeking EU membership - Water offers	- GAP reforms responding to global IWM - *Cash crisis:* 1994: privatisation to obtain funding
1998-2003	- Reforms: integrated development plan - Ceasefire with Kurds	Some technical cooperation with Syria (regime formation)	- Strategic alliance with Israel - Heavy concessions to obtain EU membership	- *NGO counter-campaign against Birecik and Ilısu; World Commission on Dams*
2003-2006	- Ilısu temporarily shelved	Some co-operation with Syria and peaceful coexistence with Iraq	- Hardening stance towards EU - Co-operation with Israel falls through	

3.5.2   MULTI-LEVEL GAMES AND FRAMES

Turkey continues to pursue its water objectives at a considerable price. Internationally, the controversy over the GAP has proved bad international public relations (reputation), not improving its chances of EU membership, and landed Turkey on the brink of war with Syria on several occasions. Also, the project has deprived Turkey of international funding; burdening a stressed economy with spiralling project costs. Political actors in all basin states operate within the limits of the possible in the power-political arena, and that power horizon still favours Turkish leadership. Turkey's international acts seem to be aimed at maintaining its role of a regional superpower, straddling Europe, the Middle East and Turkic Central Asia, for which it competes with Iran, Russia and, more recently, China. Rather than using an aggressive expansion strategy, Turkey bides its time and seeks to extends its spheres of influence (*Realpolitik*), in the strong belief that this will benefit all concerned – benefiting the public good. Alliances with Israel and the U.S. underpin its regional power position.

   Playing simultaneous games on multiple chessboards is a slow process with many repeated offensive and defensive (often merely symbolic) moves. While the Turkish state seems to be enjoying a less strained position at home and regionally since 1998. These ´rituals´ have only promoted what American geographers John Kolars and William Mitchell (1991) have termed a *pax aquarum*, a hydraulic 'imperial' configuration under the aegis of Turkey, which would underline Daoudy's argument that Turkey is currently the hegemonic power (2005). While basin relations are now quiet under the American aegis, the last lap of GAP is still not safe from NGO attack, now under the umbrella of Save Hasankeyf. Turksh gains in co-opting Syria and regime change in Iraq have made international NGO opposition to Ilısu in 2006 less likely to succeed than in 1999-2001, and the 'water war' discourse groundless.

It is unclear what Iraqis will do in the current anarchic situation, but being caught up in civil war while its external relations are under the 'protection' of allied forces provides a safe expectation that Iraq will be too self-absorbed to grumble very much over dams in the coming years. American dominance in the Middle East is expressed in extensive economic and military aid to Israel, Turkey and Egypt. As Coskun (2005) notes, the US enlisting Syria and Turkey in the first war on Iraq quashed any hopes of a cooperative basin regime, and now establishing a *de facto* protectorate over Iraq. The Americans can thus operate in the region as a patron and/or policeman, but cannot be credited with regime promotion (Coskun, 2005)[137].

While Zawahri (forthcoming) has good reason to doubt whether you can speak of 'co-operation' when no actor adjusts their behaviour for mutual benefit, the three countries have maintained an enduring minimal regime at basin scale, in a sense of stable expectations with primacy on the part of Turkey. Turkey's 'peace abroad' has been what Wolf (1998) has called 'unstable peace' built on a degree of brinksmanship, but things get solved by high-level negotiation rather than violence. Since 1998 there has been a move towards more basin cooperation.

Despite the water-based regional development strategy and repression, 'peace at home' has not arrived in the Southeast, but while the PKK continues its campaigns, the GAP can be expected to continue to be realised within a highly securitised context

This chapter has pictured the power play over the management of the Euphrates-Tigris constellation as a layer cake of struggles at different levels (over global, regional, river basin, state rule) which impinge on each other. The implication of such an analysis would be that while hydraulic conflicts notably play out at the domestic and basin levels, they are also subject to the dynamics of global political economy and geopolitics. The layers in the cake are permeable, they interact with each other. As illustrated by the Ilısu case, this interplay offered a niche in a securitised environment to politicise an issue. This reconciles different security narratives, a point I will develop further in Chapter 4.

Chapter 4: Turkey and Egypt – war, peace and hegemony

4.1   WRITING WATER SECURITY: THREE COMPELLING STORIES

After the end of the Cold War, the international water policy community came to be dominated by discourse of crisis and water war. It was felt the basins of the Middle East were almost certain to be the theatre of bloodshed over ever scarcer water resources. New river management projects in Egypt and Turkey, designed to control and divert the flow for development, elicited loud protests and threats from co-riparians into the late 1990s. At present a furore over climate change has rekindled fears of violent water conflict[138]. However, while no magic sources of additional water have been discovered, the crisis and conflict discourse has lost its omnipresence in water literature. Despite the protests from neighbours, the planned mega-projects on the Nile and the Tigris are now under way while a discourse of co-operation and shared benefits and adoption is now universally practiced. What happened here?

The discussion on 'water wars' at times reminds me of an old joke. An Englishman is introduced to a Scotsman and asks what he does for a living. The Scotsman replies: 'I am a lion hunter'. Says the Englishman: But surely there are no lions in Scotland? The Scotsman answers with a smile: 'Not anymore'.

Have water wars been successfully been prevented by a 'Scottish lion hunter', have the lions gone away, or has the world been redefined such that water wars do not make sense anymore?

Security, like conflict, only acquires meaning in a social context: only when people successfully present the image of a security issue, and others believe it, it becomes a reality. As I delved into the discourse of water and security around the Turkish GAP and Egyptian New Valley project, I realised that the felicity of the concept of 'security' does not only have an immediate policy audience (policy makers, electorate, funders) but also a wider regime context, a global discursive community. Egypt and Turkey are embedded in a larger international constellation they can seek to influence, but cannot easily ignore. To gather support for a security strategy, their concerns have to resonate with the international discourse, the grand narratives[139] in the policy and academic world in which the actors are situated. Three water meta-narratives give quite different understandings of what has been going on in Egypt and Turkey over the past 20 years. The three frequently encountered narratives can be labelled 'water wars', 'water peace' and '(against) water hegemony'. I found each of these to have considerable resonance in water discourses.

The selection of narratives is based on Trottier (2003), Stucki (2005) and Brouma (2003) whose typologies, while coming from different analytical perspectives, are remarkably similar. Like a prism, each of these stories throws a different light on water politics, presenting a different understanding of what has been going on in Egypt and Turkey over the past 25 years. The differences are exaggerated for analytical purposes[140] and organised around key authors:

- 4.2 Water wars: Starr, Kaplan
- 4.3 Water peace: Wolf, Turton and Ohlsson
- 4.4 Water hegemony: Shiva, Petrella.

These three narratives lumps together authors and traditions that might find themselves *bien étonnés de se trouver ensemble*. Nevertheless the three composite narratives can be seen as recognisable frames of reference within the water debate. yielding quite different understandings of and evaluations of security (governance) and security regimes for river management, but can

be seen as three sides of the same story. The *Annex* will apply the three narratives to regime formation on the Nile and Tigris. The three meta-narratives will subsequently be applied to flood risk management in Chapter 9.

4.2   WATER WARS

4.2.1   *CLOSING BASINS*

In the water wars discourse, water is in crisis, and it is not good news. The image of the world is like Titanic: it is sinking while the band merrily plays on. A recurring water crisis (Postel, 1992, Gleick, 1993, 202; World Water Council, n.d.[141]) discourse still bears a strong Malthusian imprint. The conflict in Darfur, Sudan, for example, is currently presented by some as a resource war.[142]

Malthusians see a linear expansion and degradation process: population growth will inevitably exceed the growth in agricultural production and water availability. This world view have occupied a strong position in the environmental policy debate ever since the Limits to Growth report published by the Club of Rome in 1972, which contained gloomy predictions that our resource base would be running out soon, possibly by the year 2000. The report gained prominence with the Organisation of Oil Exporting Countries' (OPEC) oil price hike in 1973, an oil squeeze which led to anxiety about a coming global (induced) fossil fuel scarcity.

Malthusian literature on 'closing basins' likewise supported the image of imminent resource war due to competition for scarce resources, popular in the 1990s. The discourse of fear in the water sector raised the spectre of dried out or dead rivers, when the river doesn't reach the sea or lake anymore, the over-abstraction of groundwater and such pollution overloads that rivers are declared biologically dead – all invoking the spectre of inexorable crisis (Molle *et al.*, 2007) for which Malin Falkenmark´s ´water stress´ limit (against her intention, Falkenmark, pers. comm., 1995) became an indicator.

How has this crisis come about? According to Molle (2006) it is because water can never meet their ever-expanding development needs. The Tennessee Valley model of the 1920s, a multipurpose dam project generating growth and jobs in an impoverished region, became a model for regional development. In the 1960s the export of integrated water development projects in the mould of the Tennessee Valley Authority also became a geopolitical weapon in the Cold War as an alternative to military might (Schlesinger, 1967). The US and USSR both exported this model to their client states in Asia (the Jordan, Mekong and Helmand valleys). In Africa the bipolar arena, dominated by rivalling treaty organisations for mutual solidarity (NATO and Warszaw Pact) likewise enabled Egypt and, less successfully, Ethiopia to play off the United States and the Soviet Union against each other to get funding for their dams, enabling them to be freed from destructive floods as well as droughts. However, the river inevitably reached the limits to exploitation, development states were faced with the prospect of basin closure.

While 'basin closure' can be an autonomous process of (over)exploitation, due to population pressure leading to resource competition, Peter Gleick's *Water in Crisis* (1993 [1998]) identified *resource capture* as one of the drivers of scarcity-induced crisis, next to mismanagement and population pressure. Resource capture takes the form of *river enclosure* by way of dams and diversion channels.

The fear or actuality of upstream capture leads to what is known in security studies as a *defense dilemma*[143]. As Paul Williams (2003) explains, upstream enclosure in river basins[144] brings a ´security dilemma´: water capture for upstream development, considered a peaceful goal in itself, is seen as a hostile act by downstreamers. While upstreamers in such basins will claim their river regulation efforts also benefit the downstreamers, the latter will (rightly or wrongly) attribute a failed harvest or unexpected flood to upstream water mismanagement. Feeling their customary

influx is being stolen, these others may take preventive action to forestall further capture and loss, and counter future hydraulic leverage (P. Williams, 2003: 5).

Fear of scarcity induced by upstream water capture but also fear of intentional flooding can trigger threat-defence sequences. This feature is especially salient in transboundary river basins. Often resulting from colonial decisions to draw boundaries with little regard for hydrology, rivers have become transboundary. The hydrological interdependence between surface waters, ground water, not to mention climate, is at cross-purposes with territorial sovereignty issues which are only reinforced by interventions in the water cycle to regulate the river.

After the Cold War ended, however, the attention of the security sector turned to civil wars. Security studies experts noticed that the number of international wars had dropped significantly while domestic conflicts were on the rise (De Wilde and Wiberg, 1995). Competition for resources might be a focus or trigger for non-water conflict, leading to civil war and instability. Ethnic conflict in turn could become a pawn in conflicting international relations. In this reasoning, resource scarcity can indeed induce the dog-eat-dog world described in Thomas Hobbes' *Leviathan* as the 'State of Nature', a condition of permanent insecurity, ruled by force, guile and deception, and where conflict to the death is the norm.

While fear of hunger and thirst incited a global drive for water development, fear of chaos (anarchy) incited a parallel call for hegemonic intervention from the global hegemon, the US.

This was a departure from conventional Realist thinking, which subjects resource politics to national security which is concerned with territorial integrity and political control. In Thomas Hobbes´ reasoning individuals prevent physical insecurity by entering into a collective ´contract´ with the state in which they hand over their individual autonomy, means of violence and, as Turton *et al.* (2001) note, their water resources, to the state. The fear of the coercive power vested in the state then prevents violence between citizens. The Hobbesian deal frees citizens from fear of each other, as they agree to live in fear of the state instead (Rubin, 2004).

For Hobbes, fear of the hegemon is a disciplining agent that enables self-fulfilment, taming distractive and destructive impulses (Rubin, 2004: 41). Fear of the state is not the antithesis of civilisation, it is its ´fulfilment (Rubin 2004: 32). The flipside of this is that if the state is to pacify rather than antagonise its subjects, it has to make sure that life in fear of the state is better than life in the state of nature.

In the Hobbesian state, everything is subservient to State unity and stability as the state is the 'soul' of the body politic. Given its 'civilising mission', the state takes the lead in development. Politics and the politicisation of the state are in this view seen as corrupting the rationality of the state – not only by statesmen but also, as Hansen and Stepputat (2001) note, by many citizens. Politics breaks, fragments the unity in the pursuit of a better life promised by development. The state is seen as ´above politics´ - and seemingly above the laws of nature.

But in order to survive, and protect its subjects from anarchy in the process, the state has a blank check to do whatever it chooses – including going to war. The state itself permanently needs to survive in the 'state of nature' in the international arena. At the international level, there is no central power to protect and arbitrate, so the competition over resources between people can become superseded by the competition scramble for resources between states. The global 'state of nature' consists of other states which can destroy the state. The school of Realism in International Relations has a narrative of perpetual motion - the world has always been and will be a bad place, hegemonic great powers or alliances will rise and fall, providing temporary stability in an unstable world.

The players in this international arena are unitary, sovereign states. In the Hobbesian world-view, NGOs and multi-national companies (MNCs) do not really exist and states speak with one voice. While a considerable body of international water law has developed, it has so far proved powerless to settle disputes. Only one dispute (Hungary vs. Slovenia) was taken to the International Court of Justice in The Hague for arbitration. To bring order in the face of anarchy,

a hegemonic Great Power imposes his will upon other states, whether by sticks or carrots (pressure and side payments). Fear of the powerful hegemon disciplines other states, until a contender is strong enough to take on the ´global policeman´ (Rubin, 2004).

Miriam Lowi's *Water and Power* (1993), rooted in the classical *Realpolitik* perspective reassuringly argued that water is 'low politics', and therefore by definition extremely unlikely to spark a war, being so subservient to greater goals of domestic development. But her 'voice of reason' was soon drowned out by a number of semi-academic books, articles in policy journals like *Foreign Affairs* and in the popular press, all entitled - with singular lack of imagination - 'Water wars' (Starr and Stoll, 1988, Bulloch and Darwish, 1993, De Villiers, 1999 are only a few examples). This reasoning interprets environmental resources as a national security issue, as *high politics*: a matter for the military and diplomatic service, and a possible *casus belli*. Gleick (1993, 2002) noted that downstreamers were more likely to be embroiled in international water conflict, especially if they are stronger than upstreamers. For upstreamers; water infrastructure has been used as weapons as well as targets, a means as well as a goal in an international security strategy in ancient China and Mesopotamia as well as present-day North Korea (Gleick, 1993).

Such publications resonated with a fear of environmental conflict., the latest in a growing list of ´new security concerns´. Starting with Keohane and Nye (1979), a liberal tradition in security studies foregrounded that issues in non-military domains could become high politics. Non- and semi-academic books incited the US government to prepare for economic (Ezra Vogel's 'Japan as Nr. 1'), cultural (Samuel Huntington's Clash of Civilizations) and environmental clashes (several works on ´greenwars´).

Notably the journalist/historian Robert Kaplan provided the unlikely *trait d'union* between environmental and security worries. Touching a raw nerve by invoking the spectre of a 'coming anarchy', Kaplan warned not only of lawless 'failed' states in Africa and US inner cities, but also of international resource conflict. This called for intervention in the international arena to restore order and prevent environmental conflict. In the process, the Malthusian threat became linked with a Hobbesian narrative: to prevent resource war, a strong intervening power is needed. Without the disciplinary action of global and regional hegemons, the global stress on resources was believed to become limiting and competition over water, violent. While fear of hunger and thirst incited a global drive for water development, fear of chaos (anarchy) incited a parallel call for hegemonic intervention from the global hegemon, the US. New security threats gave the security establishment a new mission[145] to bring order and stability (Bush sr.'s 'new world order'). Subsequent U.S. governments heeded the call to support regional hegemons and facilitate co-ordinated development (Starr, 1991) and under Bill Clinton and Al Gore, environmental security became a US a strategic priority.

4.2.2   TURKEY AND EGYPT AS HOBBESIAN STATES

This book started with two states embroiled in basin politics that seem pervaded by Hobbesian security logic. In all water wars literature, the Euphrates/Tigris and Nile along with the Jordan are considered most likely to lead to such 'water wars'. Turkey's GAP project, enclosing Euphrates and Tigris water for irrigation and hydro-electricity generation is seen by downstream states as resource capture. For example, Berman and Wihbey (1999) noted, "Despite the signing of a protocol ensuring Syrian access to Euphrates water in 1987, Turkish development efforts have increasingly threatened to marginalize and even *eliminate* Syrian access to water" (my emphasis, JW). Much bandied about in water wars literature about are percentage in the area of 40% of Syria's and 80% of Iraq's water would be captured by Turkey's dams. For Syrian and Iraqi rulers, not only the potential for resource capture but also that of resource release (induced flooding) triggered concerted resistance to new upstream dams.

The Euphrates and Tigris are water-stressed especially at the downstream end. In 1975 Iraq almost came to blows with Syria over Syria´s Ath-Thawrah Dam claiming adverse impact on 3 million Iraqi farmers. The Turkish 'hydraulic mission' from the downstream perspective likewise induced downstream 'stress' for fear of resource capture, so that each new dam is forcefully protested and its builders threatened. Turkey, as an upstream state where rain and snowmelt are in ample supply, has few water concerns. Turkey's GAP project similarly (in theory) has the capacity to detain the Euphrates for 6 months, and is starting to develop storage capacity on the Tigris with Ilısu. From a defence dilemma logic, downstreamers will equate hydraulic intervention with aggressive resource capture depriving downstreamers of their entitlement to customary supply and putting the external cost of resource degradation with the downstreamer. Daoudy (2005) argues that Turkey has already used water as a strategic instrument of foreign policy initiative, while the Kurdish issue is widely believed to have been used by Syria until 1998 as a bargaining chip to force concessions over GAP. According to Starr (1991) Syria even threatened to bomb the Atatürk Dam, a move echoed by Egypt's threats to obliterate any Ethiopian or East African dam structure. It is this defence dilemma that inspired my one-liner 'upstreamers use water to get power, downstreamers use power to get water' (Warner, 1992, 2004).

This is most obviously the case on the Nile. It rarely rains in the last 3000 kilometres of the river (of which Egypt occupies 1100) and groundwater sources are largely non-renewable. Egypt's lack of water alternatives made it possible and imperative to exert great control of its water resources inside the territory, fully closing the Nile at Aswan and stored any excess floodwater in Lake Nasser.

But its dependency on the Nile fanned a fear of being controlled by an upstream rival. Mindful of historic (14th century) Ethiopian threats to divert the Nile, Egypt's official policy reveals a seemingly paranoid fear of upstream capture. It sought to make sure this could never happen thanks to constraining treaties signed by Britain as a colonial state that assured upstreamers could not 'arrest' the flow of the Nile. It is no accident that Egypt has the strongest army in the basin and, due to the Suez Canal, an internationally strategic protection securing it a structural advantage. Upstream threats to rescind colonial treaties, notably the Nyerere doctrine, have led Egypt's President Sadat to make violent threats, especially directed at Ethiopia, and Ethiopia's President Mengistu to threaten retaliation if its share was touched. Egypt's strategy has consisted of preventative threats to forestall upstream leverage against rising challengers and block upstream capture and *faits accomplis*, notably *vis-à-vis* Ethiopia. In the 1990s this verbal pattern led to new threats of appropriation and violence. The announcement of the Toshka project in 1997 elicited hostility from Ethiopian leaders, which made co-operation conditional on opening up the full use of the Nile treaty of 1959, to which Ethiopia was not party. Such a revision had always been a non-negotiable position for Egyptian leaders and ministers, who at least until 2004 (Kagwanja 2007) have made public statements to the effect that they were prepared to go to war over their share of water.

Paul Williams (2003) notes the resource conflict potential is greater if states already have historical differences – Turkey's lingering claim on Kirkuk and Mosul in North Iraq, Syria's claim on Hatay, Egypt's claim on Halaib Triangle, all play in the background while water is the focus. While Turkey would seem the obviously stronger power on the Tigris, Turkish politicians have likewise expressed fear that Iraq on the Tigris would be a serious contender (Aydın, 2003). As a result, relations remain strained, with the possibility of threats of war always round the corner.

Not only are the Egyptian and Turkish water projects set in 'dry' rivers, then, they also find themselves a highly securitised environment ('security states') both at the domestic and basin level: strong security states in 'securitised' basins. In security states, organised to handle threats, every aspect of socio-cultural life and environmental resources can be subject to security policy – the line between what is public and what is private becomes very thin (e.g. Miniotaite, 2000, Drorian, 2005). Seen from this angle, Egypt and Turkey are garrison states. On the Nile, Egypt,

Sudan and Ethiopia are all engaged in (civil) war or a state of emergency inspired by fear of terrorist violence. In 1985, Sudan's Jonglei project had to be abandoned when it had become a symbolic focus of the Sudanese civil war.

On the domestic front, Turkey faces challenges from unruly basin and regional neighbours as well as its Kurdish minority as water conflict came to be entangled with non-water security concerns. Like the US Corps of Engineers in the United States, the Turkish Devlet Su Isler (DSI) are army engineers building civil development works, seek to improving not just nature, but of people (social engineering). The GAP, especially since its 1989 reformulation, has become a strategy to lift the region from its abject backwardness, a re-civilisation of what once was the cradle of civilisation, the Fertile Crescent. Southeast Anatolia became the site of a PKK uprising in 1984, which put the Atatürk dam works on its target list.

With ´water wars´ reasoning in mind, the Clinton Government made environmental security a key issue area of its defence strategy, establishing 'environmental hubs' in, among other locations, Addis Ababa in 1997 (Dockser Marcus, 1997), while supporting the creation of a basin regime leading up to the World Bank's Nile Basin Initiative. From a Realist perspective, the presence of clearly hegemonic states in those basins, Turkey and Egypt (See Table 4.1), seemed a necessary condition for the formation of international co-operation (Lindemann, 2005). Together with Israel, Turkey and Egypt, the regional basin hegemons (Table 4.1) also formed the top-three recipients of American aid until the intervention in Iraq in 2003.

TABLE 4.1 Basin hegemons in the Middle East and their riparian position (Warner 1992).

River	Hegemonic Country	Riparians	Hydrostrategic position
Euphrates	Turkey	3	Upstream
Nile	Egypt	10	Downstream
Jordan	Israel	4	Mid-stream

´Water wars´ narratives are thus driven by, a ´hydraulic mission´, unbridled water-based development leading to a scramble for resources. Following the Realist school of International Relations, American governments in the 1990s strengthened basin hegemonsmade it clear

and promoted conflict management and co-operative efforts. This international support strengthened Turkey and Egypt at home and abroad. However when a fear of ´water wars´ did make the front page in the UK press over the Turkish Ilısu dam in 1999, the international community responded not by strengthening Turkey, but by pulling out of the project. Perhaps, a different reasoning was at work. The next section delves into a different explanatory narrative: 'water peace'.

4.3   WATER PEACE

4.3.1   A CHANGE OF PHILOSOPHY

While water wars discourse dominated the first half of the 1990s, a counter-current of more optimistic publications sought to demythologise them. Aaron T. Wolf (1995) at Oregon State University demonstrated with overwhelming evidence that water wars are very rare while the number of international water treaties explodes. Transboundary rivers, it could be reasoned, naturally foster the need for co-ordination, and co-operation between the riparians. In most cases where water was a factor in hostilities, such as the 1967 Arab-Israeli war, suggests that the issue was really about something else. Rather than the imminence of war, their absence became a focus of attention, as water interdependence came to be presented as a driving force for co-operation and regime formation, ecological modernisation, multi-stakeholder participation and adaptation.

The question exercising water policy analysts´ minds now changed from 'How do we prevent water wars?' to 'What explains co-operation between states? Is there an intermediary variable that disrupts the causal relation between scarcity and violence?´

A first candidate was ´human ingenuity´, a concept very similar to adaptive capacity. In Canada, Homer Dixon and his Toronto colleagues first predicted water wars and researching drivers for violent resource conflict and warning about resource war (Homer-Dixon, 1994, 1995), but ended the 1990s concluding that crisis releases ingenuity to overcome these limitations (Homer Dixon, 1998). Human ingenuity became the core element on which Tony Turton and Leif Ohlsson built their argument for water resource reconstruction. Turton and Ohlsson's 'Turning of the Screw' (1999)[146] is emblematic of the narrative of 'water peace', as one of several accounts (policy narratives) of adaptation to stress (Molle, 2003). It is a narrative of victorious adaptation to stress. Crisis is threat *and* opportunity – an impending crisis (impending closure) provides the urgency for a change coalition: As the 'screw' of resource stress tightens, new ways out are discovered, opening windows of opportunity that are otherwise not feasible. The surprises and adaptation process can be salutary or catastrophic – or both. However, in the water peace narrative, the narrators are optimistic. The 'good crisis' in the Cornucopian narratives triggers a process of reflection learning and change. It triggers systems to become more resilient, flexible and sustainable.

In his discussion of the 'Screw' and like narratives, Molle *et al.* (2003) identify three categories of adaptation to resource stress: supply augmentation, conservation, and redistribution (demand management). The crisis impels augmentation (from external sources) and first conservation. But as basins close, it becomes progressively more challenging to add to available water supplies. This requires reallocation, both between food crops and outside the agricultural sector. Molle's list does not exclude less ´ingenious´ trajectories, such as what I would call ´running on empty´- ignoring the stress, getting on with one's life and pretending there is no problem, and see how others deal with it. This would mean further resource mining and degradation, or lowering one's development expectations. However, in Egypt, in practice - though officially unmentionable - the most serious adaptation process to augment the inflow of (embedded) water has been not to find new physical sources by drilling holes, but to increase import of food.

By the time Ohlsson and Turton presented their perspective in 1999, many sands had started to shift. Post-Cold War globalisation processes appear to have strengthened the sense of interdependence and erosion of the state. I will briefly attempt to list the most striking trends on the basis of the water literature from the past decade.

1.   An increasingly influential international narrative, the ´crisis of modernity´, unearthed the ´dark side´ of modernisation in the form of disasters and ecological degradation, leading to an ecological turn (Brouma, 2003). In the 1990s, events like the BSE crisis and the fallout from Chernobyl's nuclear power station inspired Beck in Germany, Giddens in Britain and Gilbert in France to argue that technology led to uncontrollable risks (*risk society*). These events, the narrative goes, led to a reflexive turn: science and technology lost their untouchability, their claim to solve the problems. Greatly increased environmental consciousness turned the attention from ´certainty´ into ´uncertainty´, opening up the modernist frame.[147] In the water world, the late 1990s saw a multi-stakeholder tripartite process of public, private and civil-society activists culminating in the tripartite World Commission on Dams of 2000 (Conca, 2006).[148] This brought social and environmental costs of dams to the fore, and signalled a mood away from large structures. The hydraulic mission had produced many monolithical and not rarely militarised dams. Fish and sediment passes were forgotten or inadequate. While the hydraulic mission perfected the drainage of wetlands, the ecological 'crisis' brought a different view of river management in the West. Wetlands and floods came to be seen as positive values, not just destructive and unruly. In response to ecological modernisation, Integrated Water Resource

Management needed to include the non-production functions of water, considering environmental flows, fish migration, sediment transport, and dilution as equally important. This redefinition opened up a wider technological and managerial range of options (alternatives).

2.   While many liberal-pluralists stay committed to the idea of the rational, utility-maximising individualist actor, for others the preference for diversity, exchange and choice reflects a powerful epistemological idea: Human ingenuity can also be expressed as a cognitive, conceptual shift. If you perceive a problem differently, new solutions come into view. Representations should not be taken for granted as 'reflections of reality'; if we take them apart we can consider whose realities they represent.[149] This means there are no unequivocal answers - there is always an alternative.

When discussing 'water wars', it was noted that liberal constructivists in security studies took on board the notion that non-traditional sources of conflict could lead to 'new wars'. In states' voracity for hydraulic development, they mount technological interventions that lead to downstream preventative action and possible escalation. But Williams (2003) notes resource capture carries a lot of negatives for the upstreamer, not only because of its uneconomic cost-benefit ratio due to economic, political (of confrontation) and social cost (of resettlement). It is also infrastructurally burdensome: the developing hydraulic economy needs large in-house capacity to divert stored water to prevent dam break and flooding and secure the installations against military attack. It is not coincidental that dams and large infrastructural projects came under fire in the 1990s. Dam infrastructure therefore can only really be justified on security grounds – development, food security in the sense of food self-sufficiency. However a *defence dilemma* also increases *security interdependence* - the security of one state cannot be easily separated from security of another. Linkage politics increases interaction between the conflicting sides, which can trigger a process of reflection and coordination, a realisation that neither side can fulfil individual security requirements at acceptable cost. Such reflexivity can bring new knowledge and insight that breaks the impasse in basin politics, promotes more communication and exchange, which in turn de-securitises relations.

Basin closure likewise can be exposed as a construct. To overcome the Malthusian resource crisis, you do not need to make more water - the problem can also be *reframed*. A reflexive mind would say that scarcity is a human-induced process due to overdevelopment, such that it that outstrips resource and system resilience, it can also be addressed by human action. Up to 90% of water is spent on food production. A ´closed basin´ is not necessarily physically overexploited: if you delink food security from food self-sufficiency, there are ´leaks´ in the water balance. In that case there does not have to be a closure process. Allan (1998) debunked the scarcity myth by showing international agricultural trade to be a powerful water redistribution mechanism. Food can be imported, so that the water saved can be used for more remunerative endeavours in other sectors. The water budget, the heart of any basin plan (Molden, 1997) normally does not involve virtual water. The inclusion of 'virtual' water changes the hydrological balance, as well as the scope for controlling what goes in and what goes out.

3.   This mind shift also made it possible to question the 'naturalness' of national water self-sufficiency.

What Bakker *et al.* (2006) have called an international 'green market paradigm' manifests different priorities. While modernism 'demystified' water as a spirit, the rationality of modernist national development can also be 'demystified'. Water had previously been considered a purely local good, costly and capital-intensive to transport over large distances, so that the state was the obvious prime actor to ensure universal access and economic development. State-run water however led to management as if water has no scarcity value, promoting economically and environmentally unsustainable use in inefficient and polluting industries and intensive agriculture. Its welfare role providing welfare services had made the state 'hypertrophic', in need of slimming

(Bakker *et al.* 2006: 35). Treating water as an economic good, including pricing, cost recovery and protection of property rights, and taking it out of the hands of the state, would counteract these inefficiencies (Bakker *et al.* 2006). If water is just a production factor among others, agriculture does not have to be sacralised. Food can come from elsewhere, thanks to competitive advantage in open global markets.

4. The liberal focus on global interdependencies demoted the state from a driver to an adaptor in an integrating regional and global political economy (Turton, 1999). Rather than celebrate the market, policy analysts perceived a trend towards *networked* governance Kickert 1998, Goverde 2000) in which each sector works according to its strengths. They may point out that while Realist theories normally portray the role of the state as eternal, there were other forms of governance before the Westphalian state system emerged in 1648, and globalization may have brought the return of the governance patchwork.[150] In this web, the state is as an actor among others. It may not speak with one voice; its various departments may strike up alliances with or against each other together with non-state actors or foreign counterparts (Dougherty & Pfaltzgraff 1997).

In the early 1990s, a ´hollowing out´ of the state was perceived by some and predicted by others (Kooiman 1993), and decentralisation and privatisation of services was the order of the day. The 'Hobbesian' fear of state of nature came to be replaced by a 'Lockeian' fear of state despotism (Rubin 2004), after John Locke's political philosophy.

The belated discovery of civil society promoted notions of participation, accountability and 'good governance'. Overwhelmed in carrying out its public functions, a ´crisis of governability´ confronts the state with inevitable failure, the state loses its aura of omnipotence. Therefore, other levels (local authorities) and sectors (private sector, civil society) need to be mobilised to help the state out and co-ordinate between themselves to provide services.

The changing governance of security and risk can be seen in the context of an overall perceived shift in governance, often portrayed as a sharp shift form unilateral 'steering' to co-operative adaptation to complexity by a redistribution of responsibility, labelled new (reinvented) forms of ´governance´.

For a Lockeian, the prime mover in releasing and harnessing this creativity however is not the state, but civil society: the key social relation is horizontal, not vertical. Not force but exchange is the key relation, in trade and deliberation. Ever-lengthening chains of interdependence between actors will make war an ever less attractive and economic prospect and foster co-operation and peaceful competition rather than violent conflict. The more the global arena becomes a web-like network of relations, the more one has to lose from destroying those links. The Hobbesian logic of war invites isolation and independence; by contrast, Lockeian liberalism stress freedom, diversity, tolerance and interdependence (Rubin, 2004: 53).

This notion has taken hold in the water world which was going through a process of liberalisation and privatization in the 1990s - later than other sectors, as water was customarily seen as a public service. Narratives of integrated water management, which sketch an evolution from sectoralism to holism, are also accounts of increasing complexity reflecting a perceived inevitability of a shift from hard, technocratic management and state dominance to one of soft, interactive, participatory, economic governance.

The complexity, diversity and dynamics of the modern-day world make it impossible to attempt policy problems by unilateral, linear steering and *control*. As Molle (2003) notes, Ohlsson and Turton´s ´screw´ narrative (1998) sees complexity as basically problematic and portrays simple hydraulic development (augmentation) as the most pain-free option. But adaptation to stress can not only be realised by reducing the challenge but also by increasing governing capacities (Green and Warner, 1999).

From a systems perspective, securitisation is a protective response to overwhelming complexity by simplifying the information about the environment (Albert 1998). As Ashby's Law

of Requisite Variety (Ashby, 1957) holds, coping with complexity means the complexity of the governing system should echo that of the system to be governed. Rather than steer, governments should be flexible enough to adapt to stress (Kooiman and Warner, 1998, Warner and Turton, 2000, 2001)[151] and make space to release the governing capabilities of civil society and market actors. Rather than resort to securitisation, a system could also become more sophisticated so it can handle challenges in a desecuritised manner

The imputed erosion of the state has spawned an intensive debate on what should be the referent for security: whose security is primordial? In the Westphalian state system, which replaced a patchwork quilt of overlapping European jurisdictions in 1648, the prime security referent is the sovereign state. The territorial state has the monopoly on the legitimate means of violence within its territory. Sovereignty ultimately means the state or its representatives can declare the state of exception, in which they shore up normal political rights and procedures. Enemies of the state can be placed outside the political order. For Carl Schmitt, this power, how it is exercised and how 'obedience is generated, represented and legitimised' (Ophir, 2007: 123) is the essence of the political. Arriving at the same conclusion while coming from the opposite perspective, Hannah Arendt argued that 'rights' only exist within a sovereign nation–state, and that as a consequence the only universal human right should be membership in a nation–state. The denial of this right, in Arendt's (1985) view, meant the loss of access to a political community, which is that what makes a person human.

The concept of 'Human security', coined by the Palme Commission (1984), opened up this state-centered frame. Translated quantitatively in UNDP's Human Development Index, the rise of 'human security' articulated a 'preventative "people-centered" approach that focused jointly on "freedom from fear and freedom from want´ (UNDP, 1994: 4)[152], on protection as well as development. It is this Human Development Index that Ohlsson turned upside down to arrive at an index of 'social ingenuity' (Ohlsson, 1998).

Multipolar *governance* increasingly also appears to encompass a debate on multiple referents of security for whom should security be provided. In peace studies, a debate ensued about whether the state should be the only security referent and if military security should be the only focus. The widening of security referents also put into question whether it is the military that should provide security. This led to a vertical (deepening) and horizontal (widening) expansion of security referents. But Waever (1995: 48-49) noted that while other levels might stake a claim, they will always be overridden by the security of state as sovereign actor: 'the concept of security refers to the state'.

This state centricity however appears a case of undue 'analytical closure' (Burke 2007: 12) and several security scholars, including Litfin (1997), have cogently argued that non-state groups and individuals can successfully speak security. Kerr (2003) argues there is an unresolved dialectic between human and state-centric security. They cannot both be sovereign, but at crucial interfaces, such as migration, they are interlinked. The two referents are bound to clash and lead to a different type of defence dilemmas (see also Chapter 9).

5.   In what Brouma (2003) calls 'post-modern water management'[153], not only the notion of scarcity (closure), state primacy, agriculture and science, but also the concept of *security* and risk itself came to be relativised. It may become a "boundary object" (Turnhout and Leroy, 2004), one that can be negotiated rather than subjected to absolute quantitative limits, and is not an objective given but an inter-subjective construct. The relativist view on security, the starting point for the present study is the work by Buzan *et al* (1998) and others, collectively known as the 'Copenhagen School' (1996) ever since McSweeney gave them this sobriquet.[154] The Copenhagen scholars, who became highly influential in the late 1990s, see security threats not as a fact but as a construct. This relativism introduces *uncertainty* in the analysis: risks and threats cannot be identified, measured and countered by experts, but are inter-subjective truths. The school claims

that there are very few objective security threats – what happens much more often is that something is that something is proclaimed a security threat, while something else is not.

It is notable that Douglas and Wildavsky (1983), from an anthropological perspective, had arrived at the same conclusion about risk. Some risks become politicised, while others don't, quite independent of the seriousness of the risk. It is the 'adversarial context' and not whether people are likely to be harmed that matters most (Wildavsky, 1991).

In stark opposition to the cynicism of Realists and gloom of Malthusians, Constructivists tend to take a decidedly optimistic, positive outlook. Constructivists believe that people are not individual but social actors, and in so doing they cannot help but interact and learn. There is an optimistic expectation that people can improve themselves. A constructivist analysis deconstructs taken for granted narratives and frames so that they can be reconstructed, reframed in creative ways – not engineered, but, given the right facilitator, growing organically.[155]

It would certainly be unfair to paint security constructivists as market liberals, and some Copenhagen scholars have sought to expose the downsides of privatising security forces. Neither are all equally optimistic about the prospects of peace and integration. But their approach put into the perspective the primacy of the state, economic self-sufficiency and the inevitability of a war dynamic.. The next Section explores to which extent the 'water peace' narrative makes sense in the context of Egypt and Turkey's river schemes.

4.3.2   EGYPT AND TURKEY: OPENING UP THE WATER FRAME

The 'Screw' narrative appeared at a positive moment in both Turkish and Egyptian domestic and basin politics. In 1999, Egypt's dispute with its East Nile riparians had cooled down, high Nile inflows provided a development opportunity that seemed to hurt no one while Sudan was moving towards domestic peace, opening up chances to revision the Jonglei channel. Halting steps were made with annual multilateral water conferences ('Nile 2002') to work out a new *modus vivendi* on the basin.

On the Euphrates, the decade started badly when an initiative for a regional peace conference by Turkey's President Özal in 1991 failed when Syria and Israel would not sit at the same table and a violent clash between Turkey and Syria was only just averted in 1998. But after PKK leader Abdullah Öcalan's capture and extradition in 1998-99 relations seemed to stabilise relations and bring limited cooperation, while giving rise to repeated announcements of lifting the state of emergency from the Southeast.

Looking at Euphrates and Nile hydropolitics from this angle, there are quite a few signs of change, beginning with water relations. While some frames remained closed, it appears that others could indeed be opened. There are several indications that Turkey and Egypt, too, are moving to a more 'open' political economy with public debate and participation and more open market access. The present section will explore if it is possible to argue that both Turkey and Egypt passed though Turton and Ohlsson's (1999) window-opening 'crisis' events in the course of their water project cycles.

Turkey itself is not water-stressed, and indeed the state has offered to export water to Israel, Cyprus, and Central Asia, or even the whole Mashrek region through its Peace Pipeline mooted in 1987. It should be noted that this bold surplus marketing move backgrounded the country's internal distributional problems, particularly providing regular supply to the cities. Nevertheless, developing the Southeast does not exhaust Turkey's water supply and Turkey made good on its promise to supply the stimulated account even in very dry years. River regulation appears to enable a 'plus sum' for all riparians, and better communication between Turkish GAP and Syria's

GOLD regional development administrations promises better coordination between the two countries' water development schemes.

While on the Nile the 'Full Utilisation of the Nile' signed in 1959 between Egypt and Sudan has remained non-negotiable, by 2006-07, the Nilotic states were close to signing a new Nile treaty, this time with all ten riparians –without invalidating the 1959 'full use' agreement. This can raise some eyebrows: is it possible to stretch the meaning of 'full' in 'full utilisation' beyond 100%? First of all, Sudan has never used its quota, giving Egypt and extra margin. Minister Abu Zeid claimed in 1998 that only 15% of the Nile potential has been freed up. By joining the Nile Basin Initiative, Egypt clearly counts on upstream augmentation from draining the marshes – freeing up 5 billion cubic meters (BCM) from the Jonglei Channel to make up for the 5BCM claimed for Toshka.

In addition to augmenting water Egypt seeks to augment *land* which will require this water for its development. In response to land stress Egypt initiated projects for horizontal expansion, the land development proposes a way out for the poor South, stressed by agrarian liberalisation, and the urban population from overpopulation stress, promised job security and *Lebensraum*, even if it currently turns out so far only few citizens have been persuaded to move to live in the inclement desert.

Mitchell (1995) has cogently disputed the problem frame of population pressure in Egypt. But from its actions, it appears that Egypt is currently uninterested in opening this frame. Rather, the government 'opportunitised' the floods of 1997-2000 as a way to deflect an impending population crisis – opening a window for a development strategy that already had its supporters in government.

The reflexive turn in dam management appears to have passed both Turkey and Egypt by - countries regulate their river flows with mega-infrastructure. An alternative system of multiple smaller dams for Ilısu which would save Hasankeyf was rejected in Turkey. Egypt continues to treat water as if it were unlimited and everlasting (no closure). While it changed its agricultural policy from state controlled cropping to free choice, it still tries to make sure any crop could be grown no matter the water requirement (a 'paradox of plenty' (Merrey, 1998).

To cushion the impact of floods and drought, Egypt closed off the Nile and created enough storage capacity to tide the country over dry years. Between 1980 and 1988, the Horn of Africa faced eight years of drought and between 1997 and 2000, four years of abundant Nile flow. The centralised, 'TVA'-type hydraulic mission approach is reflected in the Aswan Dam and Toshka project. For Toshka, Egypt uses the biggest pumping system in the world to transport water into the desert.

Upstream Ethiopia however showed that an alternative route, breaking through the mega-paradigm, was not only possible but expedient.[156] In the late 1990s Ethiopians began erecting hundreds of small dams on the river. However, this is not necessarily out of a risk-spreading rationale to cushion the impact of floods or droughts, but rather to 'fool' observers on their impacts, which are hard to ascertain (Waterbury and Whittington, 1997). In this sense, the move is a radical counter-hegemonic idea, not only in its challenge of Egypt's ban on upstream development, but also in its socio-technical design logic.

However, in keeping with international developments, both Turkey and Egypt now frame the economic exploitation of flood water in a sustainability discourse. Turkey's GAP continues to regulate the flood for economic growth, but has adjusted its planning to meet environmental and social standards better, promising to improve its resettlement plan. Egypt's New Valley prides itself on organic low-input horticulture and also came round to accepting the potential for water *conservation and reallocation*, together known as demand management. State-instigated adjustments include conservation (efficiency in use) and improved co-ordination through Water Users Associations.

The tacitly endorsed supply augmentation through virtual water enabled *adjustment* between economic sectors. The food security imperative appears to be losing its appeal both for Egypt and Turkey. Selby (2005) maintains Egypt is a post-agricultural economy and Egypt's New Valley has only nominal irrigation, embedded in a much bigger vision of a city, an airport, tourist complexes and industry. In Turkey, agricultural export potential (Southeast Anatolia as a breadbasket) is extolled in its PR material, but in fact energy production and, since 1989, regional development and antiterrorism seem the more important drivers for GAP.

Apparent shifts in governance are also visible. As a result of water sector privatisation, ´new´ transnational actors – transnational companies and non-governmental organisations - made their mark on the political scene. This was not so evident in Egypt, whose Aswan dam was a Cold War state-to-state technology transfer project, while the New Valley project has only attracted one major foreign investor and not much opposition. But in Turkey privatisation opened the door first for external participation in BOT projects, later for wholesale reform of the water sector in 1994, opening the water sector to non-state actors. The new water law to enable external bilateral finding for private construction of the dams, and introduced a degree of local participation. Turkey has established water user organisations in Southeast Anatolia. Egypt meanwhile is experimenting with Dutch-style water boards in the delta, and likewise opened the project area with tax breaks for foreign investors, claiming the state would cover only a minority share of total project costs. Unusual for an authoritarian state, Egypt established a Supreme Constitutional court, with a view to safeguarding the property rights of foreign investors (Tamir, 2003)

Both countries have had one-party constellations but experimented with forms of multi-party democracy – although retaining the right to outlaw certain religious or ethnicity-based parties. Both countries have a diverse (if controlled) press which reported on the politicisation of both projects.

The success of international oppositional alliances to large water projects can be seen as a resonance of the increasing resonance of individual rights and human security. NGOs could effectively mobilise the press to ´speak security´ by calling Ilısu a trigger for ´water war´. The cash crisis of the 1990s opened up a governance multipolarity that also put non-state security referents on the agenda: the environment, human rights, communal identity.

Water conflict over the Euphrates has multiple actors and multiple security referents – states, but also sub-state actors whose ´human´ security is impacted by harmful or beneficial confrontations and interventions, by upstreamers or by one's own government (McDonald 2000). A ´desecuritised´ setting makes these contending values negotiable in political and participatory processes, enabling social learning and reframing. While securitised relations follow a 'closed' logic of war and emergency (rivalry, threat, defence, escalation, defeat), and a public endorsement to resort to violence, desecuritised relations of competition do not aim to defeat but to outsmart the other. Due to the de-emphasis of force, power in a Lockeian world then has to rely on *persuasion* in a 'live and let live' world.

Reforms in Egypt and Turkey show openings to more open processes. Nevertheless, while criticism was voiced and, in the case of Turkey, essentially nothing changed to the projects, which are going ahead as intended and remain contested. Perhaps ´water peace´ does not tell the whole story either. The next Section will introduce a third narrative, as an alternative to both ´water wars´ and ´water peace´ narratives.

4.4 THE HEGEMONY NARRATIVE

4.4.1 CRITIQUING 'WATER PEACE'

For critical theorists, the absence of water wars does not evidence an absence of struggle, but rather that open antagonism has been displaced by structural conflict between hegemonic market capitalism and its marginalised victims. This 'silent struggle' of local actors against global resource capture (or resource imperialism, Käkönen 1988)[157] became dramatically public when the year 2000 finally brought what the international press branded a 'water war':- violence over water rights in the city of Cochabamba, Bolivia (BOX 4.1).

BOX 4.1 *Cochabamba's water war* (from Warner 2004b)

Cochabamba, in Bolivia's 'Central Valley', has a chronic shortage of water and water quality is appalling. To improve water provision for Cochabamba city, the military dictatorship established the state-run utility SEMAPA 5 in the mid-1970s but taken almost no formal control of the water sector. Water management in the valley was traditionally been carried out and governed by traditional rights, with a tacit understanding of non-intervention on the part of the state.

In the 1980s and 1990s, Bolivia sold off its mines, airlines, railways and electricity sector, and its plans to divest itself of its phone system only foundered because no bidders came forward. The privatisation of Cochabamba's water in 1999, then, surprised nobody, but the way this was done is more controversial: a package deal of water management contract, hydroelectricity generation, and a complex tunnel, Misicuni to augment the supply of Cochabamba's water, a project that had laid dormant as a complex, highly problematic project. The $300 million deal involved a 40-year concession, a $130 million dollar dam (to store rainy-season water) and a $62 million tunnel as well as water purification plants and sewage farms. Aguas de Tunari, an American-Spanish-Bolivian joint venture formed only weeks prior with a majority share for Bechtel/International Water, was the only bidder to come forward. Water prices were allowed to go up drastically. Tariffs were raised threefold to help complete the dam and tunnel project, guarantee 15-17% profitability and pay off past debts. The citizens of the Central Valley would have to obtain licences for their wells, diversion channels and other water infrastructure. By taking siege of the city, taking it away from state control, the protesters '(counter)securitised' the issue, legitimising illegal conduct on the grounds of 'life and death' urgency. Both the protesters and the government responded in ways outside the normal rules of political engagement: protesters took control of the city at the start of 2000, blocking all entryways. It was an unusual urban-rural alliance including peasants, industrial workers, environmentalists joined by street kids, the Coordinadora de la Defensa de Agua y de Vida, that shut the city down for four days. Peasant organisations joined the urban protest when they saw communal rights threatened by the privatisation of rural water systems. The state of siege was pronounced and protest leaders were arrested. However, when footage of an army captain was seen firing into the crowd, killing a young protester, these images provoked international outrage and drew responses from NGOs as far afield as Australia and Canada. The cause for Misicuni was lost there and then, and soon the government declared the privatisation process void. Bechtel/International Water left the country later that year and SEMAPA was reinstated as water supplier, its Board now supplemented with representatives from the Coordinadora.

This was not a conflict between states, and did not conform to the normal definition of a war. The conflict was more like a 'water riot' (Westermann, 2004), directed both at international water companies and the colluding Bolivian state resulting in a sell-out of resource rights at the expense of traditional right holders (see also Assies, 2001; Crespo, 2000, Peredo *et al.,* 2003, Crespo & Spronk, 2006 and Warner, 2004). Cochabamba showed that local protesters were not convinced things were going to be better if coordinated at the global level. The Declaration of Cochabamba of 2000 echoes the idea of a social contract for the global community (Petrella, 1998) – not the Hobbesian or Lockeian kinds of social contract we encountered earlier, but one that owes a debt to Jean-Jacques Rousseau, whose *contrat social* binds people not to the state but to the

'community', based on the idea that people are fundamentally equal and mutually interdependent. People like to be sociable, Rousseau had noted, therefore they share fundamental values, and their views are unlikely to be widely divergent (DeLue, 1997).

Petrella's Group of Lisbon, consisting of scientists, businessmen, international organizations and elder statesmen like Portuguese president Suarez, takes op the Club of Rome's Malthusian agenda and challenges the 'neo-liberal' Lockeian dogmas of protection of private property rights to resources (Petrella, 1998). Water is a 'common heritage of mankind', a contract not with the state but with the globe. The interdependence on actions impacting on water is so great that water rights can not be individualised. If water is someone's property, resource capture is tantamount to theft. If water is a global commons, who do you steal from if not from mankind as a whole? Enclosure is thus linked with the security of legal property rights. This introduces the issue of rights to water. If water is a global commons, enclosure means stealing from everybody, turning abundance into scarcity (Shiva, 2002). Most relevant to Turkey and Egypt, the Islamic *shari'a* (itself a word whose root meaning denotes sharing water) explicitly forbids denying others, man nor beast, the right to drink.

The protest against the flooding of Hasankeyf can be seen as one moment in an ongoing counter-hegemonic 'war of movement' against the global homogenisation of cultural values and 'obliteration' of (Kurdish) identity, in a long chain of counter-hegemonic moves against what IRN calls the 'world water mafia' and its depoliticising discourse of development and consensus. The Indian feminist environmentalist Vandana Shiva sees these 'water wars' as social struggles against hegemonic resource liberalism, the power of global water capital, excluding local people from their historic access to water, often displacing them with woefully inadequate compensation provisions (Shiva, 2002). They protest the sell-out of natural resources by a state that colludes with global hydro-capitalism.[158] The critical school therefore welcomes the erosion and dissolution of the state, as state security is often a source of insecurity to its citizens (Floyd, 2007). In this world view, ´security is emancipation´ - from oppression, exploitation and hegemony as the Aberystwyth School of security studies has it (Booth, 1997). But security is not just a negative (freedom from threat) but also a positive good for society.

As a consequence, state-to-state conflicts are quite simply the wrong focus of attention for critical scholars. The era of the state and, as a result, interstate wars may be drawing to an end, but 'future violent conflicts are likely to pit networks against states and state networks against each other' (Trottier and Slack, 2004: 137)[159]. The hollowed-out Westphalian state has lost its power to control globalising capital. As an international 'neo-liberal' consensus between Northern and Southern state elites emerged in the 1990s (Biersteker, 1992), conflict between social groups on one side and a 'hegemonic bloc' (Cox, 1993) of international companies and facilitating state actors on the other increased, as these social groups saw their patrimonial rights taken away, state services cut, and their welfare compromised, while private capital made double-digit profits. Restructuring according to IMF recipes cleared the way for private property, from the reasoning that people will be more careful with what they own than with public goods. In Shiva's view, a similar enclosure[160] of the global water commons is taking place world-wide, making an abundant resource scarce (Shiva, 2002: 25-26). The ´critical turn´ in political ecology puts these differential outcomes of hegemonic (imperial) 'neo-liberalism' at the centre of its analysis showing how they are *systematically* exploitative of certain humans as well as of nature (´collusive resource plunder´).

To protesters against international ('neo-liberal') water hegemony, water cannot be owned and expropriated, but rights to its use are communal. This flags up kinship, tradition and community as referents for security, as the social and cultural value of water connects a community with its history (Johnson and Donanue, 1997)[161]. Water control thus ought to be in the hands of community-run water companies (*control social*, Bustamante *et al.*, 2006) and according to time-honoured indigenous management self-subsistence practices in which water is often sacred.

Modern technology, in this perspective, does not liberate but breaks a crucial bond between people and nature (Shiva, 2002)

4.4.2   MULTI-LEVEL HEGEMONY IN TURKEY AND EGYPT

A water hegemony[162] analysis provides an alternative story of the water sector developments in Egypt and Turkey, the role of flood management and global overlay[163]. For both states, flooding creates opportunities to tackle other security concerns. The two projects, Ilısu and Toshka, share a communality in that they are not just flood management projects, not even primarily irrigation or hydroelectricity projects, but self-proclaimed people management projects - in Turkey, to develop an 'underdeveloped' region and integrate the Kurds; in Egypt, to induce resettlement to take the pressure off 'overpopulated' Cairo. In both cases the ambition is ´national unity through regional economic development.´

Turkey sees the capture of the Euphrates and Tigris as its engine for growth. The flooding of Hasankeyf occasions the resettlement of thousands, and thousands more in other villages, a process repeated for each large dam. For the Turkish government, the displaced villages and historic artefacts are like eggs that need to be broken to make nutritious omelettes. But the 'induced flood' and resulting resettlement can also be construed as control strategies for the state to extend its control of the hinterland. Ferguson (1994) shows how international development projects help the government of Lesotho to gain administrative control of the periphery. James Scott (1998) shows how government bureaucracies homogenise society to make it ´readable´ and hence more governable.

States do not only face unruly rivers but also unruly people. From a state perspective, Kurdish separatism, Islamist attacks and political assassinations are all interpreted as attacks against the state. Against such attacks, governments take (back) the reins in a securitised mode. It is easy to portray Turkey and Egypt as monolithical, totalitarian states, as accounts of water conflict tend to do. Both states have declared an enduring state of emergency and a highly visible army presence, notably in their land and water development projects. The Egyptian government has maintained a national state of exception ever since the assassination of President Sadat in 1981, and after a period of apparent democratisation, Mubarak tightened the screws again in 2005. Turkey (with interruptions) imposed martial law in Southeast Anatolia in 1987 to confront the uprising in Southeast Anatolia in 1984, in response to the PKK violently claiming its role as a spokesman for Kurdish separatism (Neumann's 'violised' conflict, Neumann, 1999). The securitised status led to the militarisation of water projects, legitimised by fears of the dam being an obvious target for terrorism emanating from the periphery.

The means by which they seek to do this, inspires theories of control and capture. Both seem to have a hand on the tap (*technical closure*) as well as military-assisted control of violent contenders relying on the state of emergency (state of exception) as a last resort to achieve closure. Like 'closure' in technological regimes, we may utilise the phrase 'political closure' pertaining to the *decision-making regime* on resource management.

The technologies of control in the 'hydraulic mission' mode are crude. In seeking to unite and culturally close the states, governments run up against inhospitable nature and resistant minority identities for which this nature is home. The rugged, mountainous areas in Southeast Anatolia and the Southern desert in Egypt present a tough challenge for cultivation as well as a barrier to integrating the groups that eke out a living in this ecology. Draining wetlands and burning and gassing communities gave the Iraqi government access to the Ma´adan and sought to crush the rebellious Kurds in the north. Jongerden (2006) has argued that the Turkish government is smoking out centrifugal groups from their hiding places as a counterinsurgency tactic. ´People management´ is also a battle over culture, a civilising mission to 'normalise' (cf. Reyes Gaskin 2005) the non-rebellious Kurds and Nubians by sedentarising, urbanising and integrating semi-

nomadic settlements and displacing traditional livelihoods and cultural expressions in non-agricultural centers. In Southeast Anatolia, a battle over identity forces previously fragmented identities to choose: become either assimilated Turks or separatist Kurds. In developing the desert for *Lebensraum*, Egypt has been reminded of the political demands of the Nubian minority. Nubians staged peaceful protest to make good on earlier promises to return to what are now the banks of Lake Nasser. Here too antagonising language like the 'annihilation of culture' and fears of 'secessionism' can be observed, although this is not the major story.

Power however does not rest on coercion alone. The state maintains hegemonic power and control, if with increasing subtlety, to ensure compliance. The greater normative consensus, the easier it is easy to ensure compliance and thus, to rule. For radical political ecologists, the environment is deeply politicized (Bryant, 1997): power relations not only shape human-nature relations, but nature mediates struggles for control. Water development then plays a crucial role in shaping society.

The hydraulic 'concept of control' is embodied by the Tennessee Valley Authority, a mega-scheme for flood control and development co-opting the working class, agriculture and industry to achieve food and energy security. 'Internal colonisation' is built on a Fordist class compromise to transform the landscape into a production base. Development, coupled with a degree of wealth redistribution and social security to prevent the immiseration and uprising of the poor. The development plans for the Anatolian plains and Nubian desert have a strong TVA imprint, as integrative projects that marry job creation and regional development with increased control (Brouma, 2003). By providing investment, employment, welfare and civilisation, they integrated landowners, industry and labour's interests. Turkey and Egypt as Hobbesian states modernized their economies hydraulically.

To lend support to control strategy, states seek to draw on the discursive (war on terrorism) and material (access to funding) resources from the international overlay to boost their domestic position. In the donor world the TVA model of state-led development had fallen from grace, the internationally emerging hegemony has become sceptical of big dams (WCD, 2000) and encouraged private participation and devolution. As we saw above, Turkey and Egypt have taken on board many precepts of participation, integration and sustainability. While the aforementioned move from ´Hobbesian´ to ´Lockeian´ governance suggests the decreasing direct control and increasing space for people, that does not mean the *de facto* set-up is necessarily more egalitarian. Underneath apparent autonomy, openness and horizontal coordination sovereign state power persists. Sophisticated governance arrangements still carry the ´shadow of hierarchy´ (Jessop, 1998). But as we shall see, this adaptation brings some risks to states that can be exploited by a counter-hegemonic coalition.

4.4.3 GLOBAL HEGEMONY AND INTERNATIONAL OVERLAY: TURKEY'S PASSIVE REVOLUTION

Turkey's hydraulic state mission (hydro-Etatism) dates back from the 1930s. Plans for hydraulic mission, developed in the 1930s had to be updated as the global scene moved on. Turkey initially challenged 'water capitalism' by keeping the water sector in state hands under its own conditions. But under the leadership of Ünver, the GAP's administration started to ´modernise´ the GAP project by including more and more aspects of Integrated Water Management in the development project. This was at least in part induced by criticism of its initial heavy-handed technocratic outlook. A material link, funding, forced the door open to late-modern private sector involvement, and on its heels, NGOs. The cash crisis of 1994 Turkey exposed a 'Hobbesian' contending state to the pressures of global Lockeian hegemony.

In response, Turkey therefore can be said to have made what Gramsci calls a 'passive revolution', a Hobbesian state making a pre-emptive about-turn in tune with the prevailing

Lockeian mode (van der Pijl, 1992). It adopted some of the global tenets of the new paradigm while making sure not to lose control and being forced to open the economy under tougher pressures, in response to the consolidation of liberal water capitalism on a global scale. The cash crisis thus provided a pressure point for international overlay, in which the Lockeian ´desecuritised´ mode penetrated Hobbesian ´securitised´ state, giving rise to a hybrid, a mix of the Lockeian and Hobbesian spheres.

For GAP to survive Turkey had to liberalise its water sector, enabling private participation in water projects. Thus, chinks in the state's armour became visible which provided a window of opportunity for the opposition to voice its concerns about controversial water projects. Unlike the domestic context, the state has limited control over the international discourse. If the situation at home is securitised, the international situation may not readily accept this. The NGO opposition decries the capture of the commons, but equally as part of the assimilation or negation of Kurdish culture. The war in Southeast Anatolia united a highly fragmented constellation of Kurdish groups into a common identity against Turkish assimilation and regional development, while the same 'logic (and chain) of equivalence' made Kurds into 'terrorist separatists'.

Bilateral export creditors however proved very willing to guarantee controversial investments, enabling the continuation of FAP. The construction sector is one of low margins and high employment. Turkey can continue to invest in GAP so because external agencies are willing to fund it.

Hence Jacoby´s (2005) view of Turkey as a schizophrenic nation, liberal and authoritarian, Jekyll and Hyde. It invokes Hall and Jacques' (1982) description of Thatcher's Britain, terming it a 'two-nation' political project. Since the early 1980s, Jacoby argues, Turkey has maintained two simultaneous national regimes in Turkey. The first has predominated in areas of the country not administered through emergency legislation, most fully realised in the economic hotspots: Marmara region and the environs of the capital, Ankara. Turkey´s privatisation opened the floor to non-state actors: the private sector, NGOs and bilateral credit agencies while a public-private alliance bailed Turkey out of its financial straits. The link with the non-securitised global arena world implies a percolation of the processes currently hegemonic in that world: cost-benefit criteria, participation, openness, environmental values. The National Security Council 'has been downgraded to an advisory body that no longer manages its own budget' (Cook, 2007). But the state continues to dominate the business sector and no contract can be signed without the Minister's signature (Munir, *ibid.*) and while the West of Turkey is increasing civic freedoms, the thirteen predominantly Kurdish provinces of the Southeast has remained under a state of emergency.. Turkey, then, remains a striking example of a dual-nature state, one that is neither only Hobbesian nor Lockeian.

4.4.4   *EGYPT: CONTROL OR DISENGAGEMENT?*

The story for Egypt within a hegemony narrative is markedly different to Turkey and epitomised by the instrumentality of the flood. While in Turkey the inundation of villages like Hasankeyf induced Kurdish resettlement in the cities, the Egyptian state uses carrots and sticks to lure citizens out of the megacity to a different locality opened up by diverted floodwater. In Egypt the flood does not require resettlement, it *enables* it – as deconcentration of the capital in new towns continues to eat up arable land.

There are signs of what may be termed 'virtual water wars' in which international overlay plays a key part. For Egypt, the archetypal hydraulic state, dependence on a single source of water in an arid area necessitated early co-ordination. The country's history of mega-projects goes back to the pharaohs. As Wittfogel (1957) theorised, the oriental kingdoms and empires were the first to develop their states by mobilising people and means for public works, if at considerable human

and economic cost. Egypt as a hydraulic state exemplifies how an edge over others can also be a brake on further progress. The Hobbesian 'hydraulic mission' model is based on state-led economic growth and political control – as the economy grows, so does the state. In tributary systems associated with the hydraulic mission, a state agency can improve its power by controlling water development. The tributary state derives its legitimacy from hydraulic development, and seeks to maximise tribute from farmers.

Egypt has been a republic since 1952. In its first decades, republican Egypt could successfully play West and East off against each other in the Cold War to obtain funding for the Aswan Dam, but post-1989, Egypt is firmly in the western bloc. Structural adjustment in Egypt has forced a liberal direction, the progressive opening up (*infitah*) of the Egyptian welfare state which, faced with a cash crisis, has been forced to ´restructure´ (Abdelazim, 2002).

Under outside pressure, the Fordist/Keynesian dream of state-led development and welfare had to be reformed. IMF conditionality in the late '70s and again at the turn of the 1990s speeded up agrarian reform and urban focus. But Egypt has different strings it can pull. By achieving consent from Nilotic states, Egypt can make the cake bigger for itself and its co-riparians through access of World Bank and UNDP. Multilateral funders need successes, too - as Tony Allan has noted, citing an anonymous World Bank official, the World Bank may need Egypt more than Egypt needs the World Bank (Allan, pers. comm., 2006).

Support from IMF and World Bank requires the kind of environmental, economic and social guarantes, and the consent of the riparian neighbourhood associated with the 'water peace' narrative introduced earlier on. But while Abdelazim (2002) labels Egypt a post-Etatist state, both Timothy Mitchell (2002) and Ray Bush (2005) claim Egypt's governance changes are *cosmetic* – the state resists external reform as well as open internal challenges (see also Kienle 2006).

Egypt has opened its investment market to foreign investors but market competition is not impressive. While the private sector pretends to invest, the public sector pretends to liberalise (Mitchell, 2002). Egypt only attracted one serious investor, a millionaire emir, to snap up a megaplot in the New Valley; and the Californian project partner, KADCO, does not bring in any money.

Mitchell (2002) uses 'Dreamland' as a metaphor for the unreal world of Egypt's contemporary development projects, mostly built on sand. As we saw in Chapter 2, the state does not seem to be working very hard to make its costly mega-project successful, nor to make life better for those to stay behind on the countryside (losing their land rights) or in the city of Cairo (no urban regeneration). Dorman (2007) places Toshka in a long lineage of development mega-projects: desert urbanisation, urban wastewater disposal, cyber city 10th of Ramadan - all non-sustainable and, generally, unsuccessful.

Meanwhile the army appears to become 'civil' (Cook, 2007) but now controls key economic sectors, most notably the 'pyramids' envisioned by Hosni Mubarak, himself an air force officer. Land speculation in the desert especially involves the military sector, which has enormous business interests. The state projects an image of national greatness and high modernity, while most people live in poverty. This allows the army to 'rule not govern' (Cook, 2007).

In contrast to Turkey's Ilısu Dam, Egypt's Toshka project hardly created a ripple in the international press. Egypt's mega-project affects only few people and natural resources in a remote area, so there are few images of outrage to broadcast. As Toshka is largely self-funded, it is less vulnerable to outside criticism and conditionality. This also means there is no focus for opponents to engage with a more fundamental state disengagement from society (Dorman, 2007). This abandonment is captured in Dorman's coinage 'the Politics of Neglect'. In this sense, building a new civilization in the desert seems as much a political as a river diversion. Authoritarianism and market liberalism worked so well together they could turn a studied 'deaf ear' to rural demands (Bush, 2005). In Egypt, agrarian reform forced tenants off their lands. By reasserting absentee land ownership, the state took its hands off the *fellahin* and instructed the

police to support evictions. 'Lockeian' liberalisation clashes with 'Rousseauian' community values as Egyptian villagers lament that landowners do not respect custom but cash (Bush, 1999). In Egypt, it is not control but abandonment of the countryside (and of Nubians) that appears to generate resistance. Where else could displaced *fellahin* go but Toshka?

The hydro-hegemonic perspective thus highlights resistance to the capture of resources and neglect of cultural values and local autonomy. As both Conca (2006) and Furlong (2006) have noted, this capture is not obviously remedied by basin co-operation, as antagonistic states can set their differences aside to pursue joint benefits which then go at the expense of *third parties*. From this perspective we can see the Kurds claiming GAP steals their water (Frey, 1993: 64) and space, while the South Sudanese claim a share of the Nile 'disappearing' when the Jonglei Canal goes ahead.

For anti-globalists, the state mediates the erosion of customary rights by global forces, to which the ´water peace´ reforms provide selective inroads. While resettlement and loss of livelihoods is an issue in both countries, only in Turkey did unease with the project connect with an international anti-globalist discourse community, underpinned by a human rights and environmental discourse. We will encounter this again in the next chapter on a flood control dispute in Bangladesh that foregrounds Shiva´s (2002) gender issues rather more than the Turkish and Egyptian cases.

4.5   CONCLUSION

Maybe Lowi's (1993) argument was correct after all: a hegemonic power ensured stability in the Middle East hydro-security complexes. Maybe countries have started to see sense and started desecuritising water. Taking a cue from the Scottish lion chaser joke, it is also possible that there have been no interstate water wars because attention has been focused on their imminence. Buzan *et al.* (1998) have noticed that a threat, a crisis, including the threat of war, commands special attention. Perhaps the water wars proponents didn't quite believe in 'water wars' themselves, but securitised the issue to propel the environment on the agenda. Thus attention has had political effects, in that the Clinton administration made resource conflict quite central to its defence policy. Then the calendar read 9/11, 2001 and the whole global geopolitical scene changed. As the war on terror dominated everything, resource conflict slid down the agenda.

No matter which hypothesis may prove to be correct, each of the above narratives has had serious consequences, globally but also for the basins under review.

The first tale we encountered, '*water wars*', considers water as a high-politics (security) issue – food security is key, it requires water scarcity, which inevitably leads to violent competition unless a hegemon steps in. The chapter has argued that ´enclosure´ and its close cousins, physical, political, discursive 'closure', are at the heart of this narrative at the level of the project, as well as the national and basin governance context. Euphrates/Tigris and Nile are closing basins experiencing a potentially explosive scarcity stress while relations in the river basin community appear deadlocked and 'securitised´, a situation which drowns out all other concerns (Jägerskog and Phillips, 2006) and can lead to all-out or proxy war (Turton, 2001). Water security links in with other (high-politics) national concerns so that (Southeast) Turkey and especially Egypt have come to look like highly closed political environments with a ´garrison state´ character.

While regularly revived in light of climate change, this 'closure' narrative now seems 'so 90s'. An alternative account puts a very different perspective on water availability. In a ´water peace´ narrative, in which Malthusian closure is not the end, but a driver for adaptive (positive) change. Both countries scrutinised here in their own way appear to move away from a stifling closure at home and deadlock abroad towards '*water peace*'. Virtual water puts the resource 'closure' of the Euphrates/Tigris and especially the Nile into question, putting the primacy of water security into

perspective. Water sector liberalisation, participation and the beginnings of a ecological discourse made themselves felt, seemingly eroding state sovereignty and control.

An alternative counter-discourse claims while there is no water war, neither is there water peace. While the modality of governance changes, this does not necessarily herals a change in control. From a hydro-hegemonic perspective, often *plus ça change, plus c'est la même chose.*

Hydro-hegemony is expressed in ever more subtle forms of control over water – and over society. While symbolic of resistance of the periphery to centralising Turkish and Egyptian state hegemonies, at domestic level. notably the Ilısu project was a focal battle in an ongoing struggle against ´neoliberalism´ in the international arena.

Perhaps there are dialectics at work, an oscillation between security and non-security discourse. While the water wars thesis painted too gloomy a picture, water cooperation thesis appears overly too optimistic. In practice, cooperation and conflict, and their associated speech acts, can go together - ´though water issues are highly politicised and securitised, at the same time, they constitute an element of co-operation' (Brouma 2003).[164]

While the third narrative posits a permanent hegemonic struggle between rapacious capital and grassroots anti-globalist, anti-hegemonic discourses normally do not abandon this world, but play the game while looking for counter-hegemonic niches. As a result, the three discourses interact and compete in the global water scene. The globalised hydro-industry co-opted and accommodated some ideas from the critical opposition, while the water wars narrative appears to be gaining ground again, on the back of the global warming and terrorism scares. Thus, while the Egyptian project was only weakly politicised, the struggle over Ilısu is, as it were, an arena in which all three narratives (water war, peace and hegemony) played out.

TABLE 4.2   Summary of the Three Meta-Narratives

Water Security Narrative	**Water wars**	**Water peace**	**Water hegemony**
Security is	State security	A relative concept	Emancipation
Security referent	State	State and individual	Community or globe
Governance is	Government	Redistributed responsibility	A euphemism for hegemony
Water conflict is	State rivalry over resources	Pluralist contest	Battle for/against hegemony of state or water companies
International anarchy is	Negative	Negative	Positive (Anti-hegemony)
Floodwater is	Essential to food security; A source of material national strength; source of conflict	Social and economic good like any other	Common heritage of mankind; subjugated by hegemon
Resource closure brings	Violence	Reflexiveness and innovation	Appropriation
Desirable goal	Hegemonic stability to control 'minus sum' of anarchy	Asecurity, integration; Plus sum (peaceful competition)	Ahegemony; Liberation of man and river from hegemony
Governance	Domestic: Top-down International: Hegemonic	Networked (reflecting Requisite Variety)	Community self-control

If we then look at where Egypt and Turkey stand, the Table below shows great similarities in the set-up, if with a few interesting differences. A composite picture of the three lenses highlights the complementary role of more or less prominent hard, military power enforcing political

closure and unity and coupled with hard, structural science closing the river, with the softer forces of ideology and social engineering, bringing more subtle controls on a greater degree of complexity, diversity and openness. Flood manipulation interventions facilitate state control over peripheral areas, if in different ways: while Turkey's project seeks to integrate the Kurds with a civilising mission of regional development, the Egyptian project seeks to absorb those at the receiving end of state disengagement in the countryside and the overcrowded urban areas. The resources these drives require differentially expose the governments to the 'reflexive' ideas and conditionalities from external donors lobbied by international market and civil-society actors.

TABLE 4.3   A comparison of Governance models affecting water project, Turkey and Egypt.

	Egypt	Turkey
Basin relations	Conflictive, moving toward formalised basin regime	Conflictive, some cooperation
Domestic governance model	Etatist, secular development state; Authoritarian democracy	Etatist, secular development state; Authoritarian democracy
Securitised context	State of emergency since 1981	State of emergency since 1984
Role of army	Reduced but powerful in economy	Reduced but exerting great power in the background
State's 'other'	Islamist, poor South	Islamist, poor Southeast
Governance model in project area	Army-dominated investment zone	Army-dominated 'garrison state'
Status of water project	National security interest	National security interest
State relations with centrifugal groups affected by water project	Peaceful protest from displaced Bedouin and Nubians	War with centrifugal Kurds
Effect of river intervention	Regional development; Resettlement away from city	Regional development; Resettlement/dispersal in city
Repression	Muslim Brotherhood outlawed; Nubian politicians MPs excluded	Kurdish parties outlawed
International overlay	Strategic ally of US, Support from World Bank	Strategic ally of US, No World Bank support on water resource projects from the mid-1980s
Window for resistance to project	Cash crisis in 2000	Cash crisis in 1994
Hegemonic Concept of control	Disengagement from society	'Peace at home, peace abroad'
Anti-hegemonic protest	Rural violence against land reform	International protest against resettlement of dam displacees

Having looked at the hydropolitics of security in two ´dry´ basins, where floods are controlled and used as opportunities for development, the next four chapters will focus on ´wet´ basins where floods are not yet fully controlled and are securitised as threats to life and limb.

CHAPTER 4 - ANNEX

Three faces of basin regime formation on the Nile and Tigris

The explanation on the workings of a basin *regime* differs between different broad schools of thought. These perspectives reflect the narratives discussed in the present chapter. Below, I will introduce, then piece together, these three 'faces' of the prism.

Realist regimes

The Realist,[165] power-based school of International Relations sees states as unitary 'billiard balls'. Realists see regimes as a tool for international conflict management, based on a Hobbesian fear of international anarchy. A strong hegemon 'maintains' the regime with carrots (side payments) and sticks. Thus the presence of a regional hegemon would be enough to avert war. If the hegemon weakens, so will the regime (Jägerskog 2004).

Due to geography, upstreamers can do as they please; the downstreamers just have to accept. Thus from a largely Realist (*Realpolitik*) perspective Miriam Lowi (1993) claimed that the formation of a co-operative regime formation requires a *downstream* hegemon, since that actor has an interest in securing the water supply and the power to compensate for its downstream position. Upstreamers do not need to co-operate as that would only constrain their room for maneuver.

This reasoning appears to be borne out in reality. The strongest power in the Euphrates-Tigris basin, Turkey, so far has had little incentive to co-operate with downstream neighbours. While Turkish-Syrian (GAP-GOLD) co-operation on development schemes and a more recent trilateral 'basin-wide Track 2' process suggest openings for cooperation, Turkey unilaterally went ahead with the Ilısu dam.

On the Nile however a 'quasi-regime' between Egypt and Sudan has been in place since 1959 (Waterbury 2002), which is a partial rather than basin-wide agreement. Downstream Egypt has since taken repeated initiatives for co-operation with all Nile countries. Egypt indeed needs upstream co-operation to achieve greater Nile inflow in the long term, and therefore has already for decades been motivated to seek co-operation through Undugu, TECCONILE and now the Nile Basin Initiative (NBI), to ensure continued access to Nile water. These openings have been hailed as international regimes. As Brunnee and Toope (2002)[166] maintain from a 'water peace' perspective, the NBI promises to ensure the treatment of the Nile as one ecosystem. However, the road to getting there was believed to be paved by *delinking* the White and Blue Nile branches to arrive at regime formation on the Nile (Waterbury 2003). The premise of the Nile Basin Initiative (since 1999) is that basin-wide co-operation can bring a plus sum. The NBI makes a new agreement on the Nile possible to stretch the limits of the ´full´ utilisation of the Nile agreement of 1959 for Egypt. As noted, it translates into a reimagined potential for augmentation (reframing). Also, co-operative regulation may cushion the shock of climate change, which is predicted to bring variability in floods and droughts, a variability that makes Egypt feel even more vulnerable.

On the Nile, some upstream countries seem to have become more assertive vis-à-vis Egypt and Egypt is willing to initiate projects with joint benefits that will increase the amount of water flowing into Egypt, such as the aforementioned Jonglei Canal. Egypt's role in peace building in Sudan is very closely linked to a (Egypt's) desire to have the canal completed and indeed Egyptian experts will be involved in new dam plans (Mason *et al.* 2006). This seems to signal a somewhat greater leniency on upstream development project, helped by a linkage politics that broadens the negotiation beyond water to energy. In terms of epistemic communities, all kinds of technical basin co-operation have sought to make sure that experts keep exchanging information

even when political communication breaks down (so-called Track 2, 3 and 4 processes – Dore 2007).

Reframing security complexes: Towards integration?

By contrast, pluralists (Lockeians) take an 'interests' approach to regimes. This interest-based approach posits that when two or more countries have a joint interest in co-operation, and need contractual security to realise it, they will co-operate. Regimes reduce transaction costs, making the costs and benefits of action clearer (Jägerskog 2003). Ever greater integration results from ever-lengthening chains of interdependence, promoting peaceful competition (trade and democracy). Rather than material ´hard power´, pluralists advocate bringing soft power to bear (Nye 2005) capturing the ´hearts and minds´ of non-hegemons, aspiring to enjoy the benefits the hegemon enjoys (values). For this school, international regimes are the 'implicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations' (Krasner 1983: 1). The leading power does not have to be the strongest power: Malta was a leading power in codifying the Law of the Sea and as Haufler (1993) has argued, regime values often originate in society, then seep through into governmental circles.

In the context of the present research's concern with *frames* it is especially instructive to consider the *cognitive* school within Lockeian pluralism, which similarly focuses on values but links those with the emergence of joint use of knowledge and learning to consolidate the technical and social ingenuity are needed to establish water regimes (Turton 2001). Complexity and uncertainty are reduced through the leadership of so-called 'epistemic communities' (Haas 1992). Epistemic communities are groups of experts and professionals who agree on particular definitions and methods. As actors realise their interdependence and as knowledge grows and becomes accepted, states will co-ordinate more and more with each other, for example the riparian states of the Mediterranean Sea who agreed on the 'Plan Bleu' for cleaning the sea up (Haas 1992). Regime formation seals this frame convergence with a pragmatic cognitive 'closure'. Such sea or basin regimes may be triggered by what Hajer (1996) terms an *emblematic event*; an environmental crisis or shock such as the Sevoso spill on the Rhine in 1976 (Young 1994), or fear of the consequences of climate change.

This re-construction gives a whole new perspective of security crisis and war, and has induced considerable optimism. If securitised relations suppress ambiguity and diversity, desecuritised relations celebrate diversity and toleration. But how do you shift from securitised to desecuritised?

The Copenhagen school sees securitisation and desecuritisation as two sides of the same coin in a context in which (in)security is the key concern. Desecuritisation still holds the potential for war and resecuritisation is always a distinct possibility. However they consider it possible to overcome the security dynamic. As regimes form and war become an increasingly unlikely prospect, relations may reach a state of *asecurity*, in which the belief has settled in that others have either lost the capacity to mount an attack, or have no intention to do so even though they can. If the securitisation-desecuritisation dynamic is transcended, a situation of *asecurity* is achieved in which war is no longer an issue. This happens when the integration in a region is well-developed. Integration creates a security community (Deutsch 1957), a 'community of friends' in which war between the community partners has become almost unthinkable.

A security complex can thus be governed by 'anarchy' (a dog-eat-dog situation in which each state 'goes it alone'), a regime (some co-operation), or integration. As Buzan and Waever (2001) note, the security complex typology maps well with Alexander Wendt's constructivist approach to relations between states (Table below). In the tradition of the so-called English School in International Relations, Wendt sees states as social beings who together form a Westphalian 'society' of states. Through their interactions, states can learn and redefine their interests and

identities. Wendt (1999), spearheading the constructivist turn in International Relations, notes that states may see each other as rivals (who see others as a waste of space), competitors (who want to outcompete but not eliminate the other, as in a game) and friends (who look out for each other)[167]. Relations between states in a 'regional complex' may be dominated by any of these three.

Transboundary basins like the Nile and Euphrates Tigris can be seen as a hydro-security complex, in which states are crucially interdependent for their security needs (Lindholm 1995, Turton 2003, after Buzan 1991). In such complexes, the perception of relations between co-riparians can be transformed from enemy to friend. The Mekong counts as a (flawed) exemplar of water-based integration, based on the Tennessee Valley Authority, which survived the Cold War and is overseen by a multi-state Mekong Basin Commission.[168] The Nile Basin Initiative is hoped to enable similar integration.

Following Wendt's (1999) model, it should be possible to describe the relations between states at basin level as Hobbesian, Lockeian or even Kantian (see Table below):

TABLE 4A.1 Relations in the hydro-security complex. In the ´water peace´ narrative, defence dilemmas lead to conflict relations, but can be desecuritised after which increasing basin integration makes the prospect of war ever more remote.

Relations in Buzan´s Security complex	Relations in Wendt´s society of states	Likelihood of War	Key ambition	Turkey and Egypt in the hydro-security complex
Anarchy	*Hobbesian*: Dog eat dog rivalry top the death	Preparation for war	Eliminate	Threats and alleged ploys to destroy infrastructure
Mature anarchy	*Lockeian*: Generally peaceful competition; Some exchange and regime formation	War cannot be ruled out, but interdependence is growing	Co-exist	Emerging basin regimes. 'Track-2' processes
Security Community	*Kantian*: Integration, Solidarity	War has become unthinkable	Integrate	-

Critical regime theory

While usefully expanding a materialist and normative approach with knowledge and ideas, a significant problem with the cognitive school in regime analysis is that it only focuses on what is being said and established, not what *cannot* be said as a result of this very closure. The *hegemony approach* brings a different kind of understanding of *regime*. The stability of expectations a regime procures, valued as an international public good, does not mean there is no more underlying conflict and asymmetry; the relationship between hegemons and non-hegemons is not necessarily peaceful or cooperative. But the term hegemonic stability only tells us that there is no *overt* conflict, as closure makes it difficult to challenge established assumptions and procedures.

Zaschke (1990) has analysed regimes from a Marxist control perspective, Keeley (1990) has taken a Foucaultian perspective of regimes while a political ecology approach helps us link regimes institutions, knowledge and nature (Waller 1995).[169] What the approaches have in common is that they critically engage with the co-operative label of regimes. While, we saw that for the constructivist security analysts a security community and integration are the ultimate goals, a critical stance would note that the word 'community' in security community presupposes a beneficial, voluntary and legitimate nature, and ignores how contestable knowledge always needs to be legitimised.

The term, ´sanctioned discourse´ (discursive hegemony), reveals that there is also non-sanctioned discourse: the 'unspeakable' is as important as the spoken word. This aspect of 'sanctioned discourse' is hinted at but unfortunately not elaborated on by Jägerskog (2004) in his work on the river Jordan regime. This gives us a perspective on the form Nilotic co-operation is taking. The purpose of official discourse is "to allay, suspend and close off popular doubt through an ideal and discursive appropriation of material problem" (Burton and Carlen (1979), quoted in Miniotaite (2000).[170] This becomes more pressing in a Lockeian arena where open display of state power is not acceptable, so that it is even more important that the state concept of control appears egalitarian while serving the dominance of the state. "Which discourse is the hegemon (…) often only becomes clear in a *crisis* – i.e. when even institution and discourse collapses and face a total identity crisis at which point several discourses would try to solve the situation and one, the hegemon, would succeed and create the new framework for identity and meaning" (Lindahl and Sundset 2003: 23, my emphasis, JW)

Yet a 'mobilisation of bias' due to control of the agenda (Lukes' second face of power, Lukes 1974 -2005) may make sure the issue never reaches the agenda while third-dimension, normalising power may ensure the issue never even comes to mind. A Foucauldian take on regimes would argue that the power/knowledge agreed on in those epistemic community has disciplinary force (Keeley 1990), ensuring compliance with hegemonic concerns. Such communities can enforce 'sanctioned discourse' and in so doing makes co-ordination easier for the hegemonic power: it becomes impossible to touch on certain issues or define them differently.

'How they agree upon and articulate causal linkages within complex issue spaces; how they frame issues and define salient discourse; how they define and limit potential solutions or outcomes; and how they define state interests within the issue space (...) As technical knowledge disseminates and links specialists across political boundaries, we see the formation of knowledge-based power networks on a global scale '(Ford Brown 1997).

Hegemonic discourse establishes a regime of truth, which 'dominates, covers up, and discredits what Foucault terms 'subjugated knowledges' (Keeley, 1990: 91).

A striking aspect of Nile cooperation is that it is focused on improving water quality or exploiting non-consumptive water quantities (hydro-electricity). Water co-operation never touches on the distribution of water between the countries. It also ensures a 'sanctioned discourse' that prevents a frank debate on the terms of Nile co-operation. While learning and shared benefits are certainly within reach, they do not take away from their role of propping up Egypt's primacy.

In this context it is striking to see a paper on the 8th Nile 2002 Conference contrasts 'hydro-cooperation' with 'hydro-politics', a critical approach would argue that cooperation is a form of hydropolitics too. Their separation tells us something fundamental about the conditions under which Nile cooperation takes place. Such regime analysis highlights how exposes that the Nile regime helps Egypt maintain hegemonic control in a non-coercive way.

Since the 1980s, Egypt has pursued a basin strategy in which 'Egyptian primacy would be ensured by moderation and consensus-building rather than by revolutionary conquest or militant intimidation' (Rubin 1998). While Ethiopia and other states resent not being able to develop their water resources, they would have little opportunity to do so, economically speaking, and would rely on external donors for whom they are not as strategically important as Egypt.

Man's control over the river tends to be far more limited than both captors and their critics fear. But the *illusion* of control sets in motion (hegemonic) projects, and resistance to them. Now that Egypt has captured the Nile flow it claims it plans to use 5 BCM for Toshka, and Turkey *could* capture the Euphrates flow, but whether it would do so is also dubious. The Toshka spillway justifies a water claim without even necessarily using it. Egypt appears to capture the water for development because it can, not because of an urgent need. For hegemony to remain

uncontested, it takes the consent of other actors. In the case of the Nile, it is the World Bank that upholds the sanctioned discourse, ´talking the talk´ of the Egyptian leadership, which has a decisive influence on the formation of the new Nile basin regime.

While Ethiopia as well as some other upstream countries have become more assertive *vis-à-vis* Egypt, they have never rescinded earlier treaties and appear to co-operate happily under the NBI. Likewise, Turkey's downstream co-riparians on the Euphrates and Tigris have barked much worse than their bite, especially before 1998. The theatre of moves and countermoves for public consumption seems to hide a reassuring pattern of stability.

A hegemonic analysis of Tigris regime politics was already foreshadowed in Chapter. 3. In the Realist perspective the Turks, as upstreamers, have little incentive to co-operate. Indeed while there has been technical cooperation, there has not been a serious initiative for a trilateral deal. On the Euphrates, peace with Syria freed Turkey from the headache of the Kurdish card. Given hegemonic rivalry on the Tigris, Turkey had an interest in joining the anti-Saddam coalition in 1990 and 2003 but the Turks also need the Iraqis to control the Iraqi Kurds. The overlay of American global hegemony buttresses Turkey's predominance, but stands in the way of Turkish-Iraqi appeasement. The de-escalation is supported by a ´Track-Two´ (non-official) co-operation process between the Euphrates and Tigris neighbours seeking to get things moving at the practical level while the official 'Track-One' interaction remains troublesome, however has characteristics of the creation of stable expectations that is the crux of a basin regime. At its public presentation during the World Water Week 2006 in Stockholm, which I attended, it was notable no political issues were discussed, suggesting a sanctioned discourse is at play in this context as well.

Chapter 5: Death of the mega-projects?
The controversy over Flood Action Plan 20,
Bangladesh

 'Water management? There is no water for eight months, so what are they doing?' (Tangail citizen)
'It's going to destroy us more than the floods do,' Hossain [a Tangail citizen] says. 'How can they do this to us?'
'Operation successful, the patient died.' (Bangladesh consultant on FAP 20).

5.1   INTRODUCTION

In age-old South Asian cosmology, the river feeds, the river destroys in an endless cycle of death and regeneration.[171] Whoever wants to control the river, attempts to control the Mother Goddess and play God over life and death. Nevertheless, this is what the initiators of the Flood Action Plan sought to do in Bangladesh after the floods of 1987 and '88: to prevent flood destruction for good.

Flood Action Plan 20 (FAP-20), also known as the Compartmentalisation Pilot Project[172] was the Plan's flagship project, a Dutch-initiated experiment in participatory flood management in North-Central Bangladesh. The compartmentalisation of polders, enabling the controlled drainage of monsoon water, was conceived as an innovative and participatory compromise between 'wet' and 'dry' flood management (ISPAN 1992; Faaland *et al.* 1995; Final CPP final report, 2000). The drainage between compartments was to be managed by user committees.

According to its eventual Technical Assistance Project Proform (TAPP), the project's Terms of Reference laid down in 1993, FAP-20 was intended to establish feasible, achievable and sustainable water management systems. While straightforward in engineering terms (Shamunnay 1996), its operation brought with it a host of socio-economic, environmental and institutional issues which unexpectedly politicised the project.

As Geof Wood (1997) notes, 'with a centrally important natural resource determining so many other features of life (...) it would be surprising if there was no controversy'. The surprising thing about the conflict over FAP-20 however is that a local movement against a fairly small project managed to create a global stir. The coordinating World Bank faced busloads of angry women in Dhaka shouting 'break the dams!' and 'stop FAP! Grow forests!'[173] The protesters were decrying the project's negative impact on landless and fisherfolk in the project area and dwellers of the adjoining areas, which led to occasional violence. The European Greens organised a protest conference against FAP as a whole, in so doing mobilising international opinion against the scheme. Donors started to pull out in 1994, which almost led to the project's discontinuation after 1995. Disagreement over both the technical (compartmentalisation) and institutional (participation) element of FAP-20 led to several reformulations of the programme.

The case study seeks to understand why and how this happened by analysing hegemonic problem frames and counter-frames, securitising moves and countermoves to change the 'flood frames' of risk and responsibility. It zooms in on the 'felicity' of security frames and counter-frames shaping controversies on flood management with their intended audience. Because of the strong overlay of international development aid on the domestic scene (Section 5.2), the conflict over FAP-20 was played out as much at the international as the national level. After sketching the tense Bangladeshi political context in Section 5.3 and the project selection process in 5,4, Section 5.5 explains the intended participatory structure and experience with participation in FAP, after which the focus turns to unintended ´participation´: the strategy of resistance and politicisation

of alternatives which, it argues, had striking ´dramaturgic´ content. In 1995, the project was at a crossroads. Section 5.6 describes the events and changes introduced in the second phase of FAP, and how the project fared in the flood of 1998. In closing, Section 5.7 contrasts the image of FAP as a mega-project to stop floods 'forever' with FAP as a programme of studies, as it is now sometimes represented.

As the project was Dutch-initiated, I have mainly focused on the Dutch side in my discussion of the donor dimension. Some 30 interviews and informative conversations were held in Dhaka and Tangail in November and December 2000 with Dutch donor representatives, BWDB senior and diploma engineers, Bangladeshi and Dutch project consultants, a Dutch team leader, a Dutch Embassy secretary responsible for the FAP-20 project, Bangladeshi and Dutch NGOs as well as local people in Tangail. Interviewees were found through snowballing, while the documentation mainly draws on an extensive search of the World Bank, project office and Wageningen University libraries.

The analysis also draws on findings of a group of Wageningen and Delft MSc students from both natural and social science backgrounds, who visited Tangail in 2006 to make a quick scan of what happened to the FAP-20 project in the context of DHO's (Dutch Platform for Sustainable Higher Education) North South exchange project.

TABLE 5.1   FAP Project history and rationale. Countermoves are italicised

| Date	Event	
Autumn 1987, 1988	Major flood events in Bangladesh	5.2
1989	London donor conference; Selection of FAP20; Presidential approval *BARC report against Green Revolution technologies*	5.4
1990 Oct	Final draft of project proposal FAP-20 (Original TAPP July 1990)	
1991	(December:) FAP-20 inception report	
1992	Euroconsult contracted; public consultation	5.5.1
1993	FPCO's Guidelines for People's Participation	
1993	*FAP protests in Tangail and Dhaka* leading to - Dutch IOV Inspection team reports - Dutch/German donor review mission advises to shore up FAP 20-Sirajganj - FAP TAPP being recast (June 1993)	5.6.3
1994	*BELA Lawsuit against FAP-20* Donors starting to reconsider	5.6.5, 5,7
1995, May	- Dutch Mid-term evaluation team - recommends continuation with different consultant - UNDP (Faaland) report 'Flood and Water Management: Towards a public debate'	5.6.3
1995, Oct	- CPP (FAP-20) Reformulation Mission Report - Change of main consultant	
1996	German ODA Minister visits, shores up funding in March, requests Inception report for 2nd phase	5.6.3
1997	Dutch ODA Minister visits	5.7.3
1998	1 in 100 year flood hits Bangladesh (see 5.7.4). Absence of famine.	5.7.4
2000	End of Project; Final Report released - but not underlying studies	5.6.4
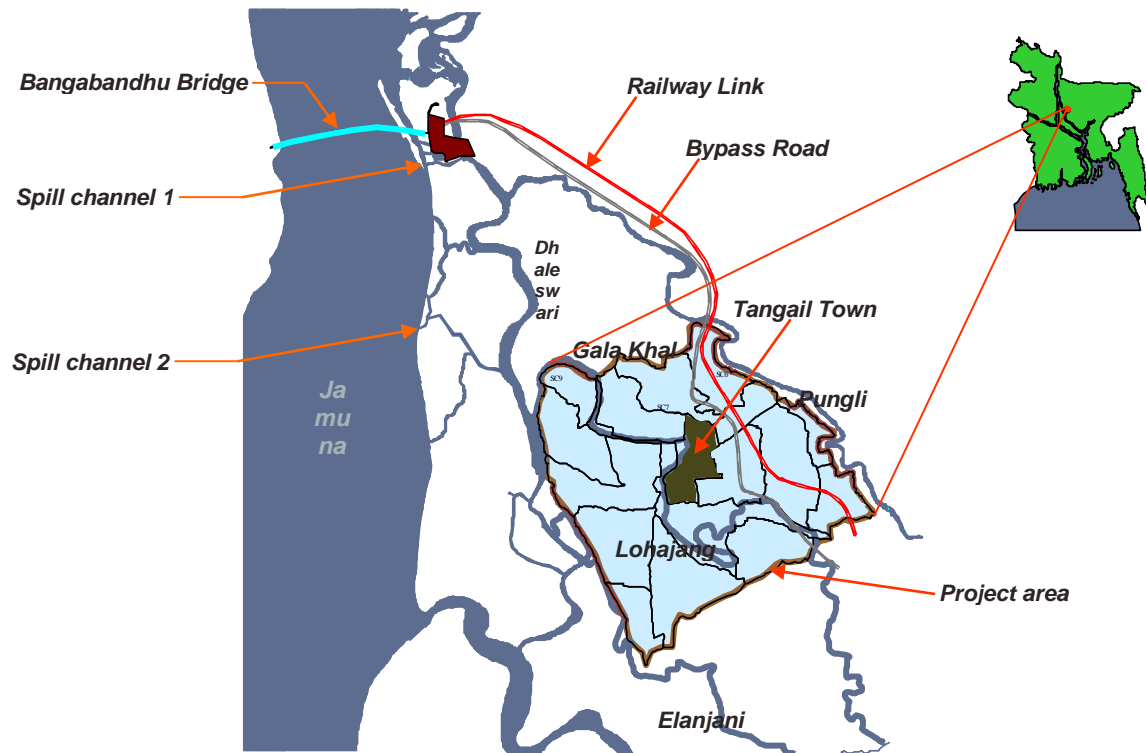
FIG. 5.1   Location of Tangail and Dhaleswari Closure

FIG. 5.2   Tangail District

TABLE 5.2 Flood Action Plan Proposals

No.	Name of FAP project	Funding Agencies	Committed	Spent approx. (March 1996)
1	Brahmaputra Right Embankment strengthening	IDA	3.36	3.36
2	Northwest regional study	UK, Japan	4.60	4.60
3	North Central Regional study	EU, France	3.56	3.56
3.1	Jamalpur Priority Project	France, EU	2.85	2.85
4	South West Area Water Resources and Management Study	ADB, UNDP	3.83	3.83
5	South East Regional Study	DA, UNDP	2.20	2.20
6	North East Regional Study	Canada	14.60	11.99
7	Cyclone Protection Project	Eu, IDA	1.00	1.00
8A	Greater Dhaka Protection Project	Japan	3.00	3.00
8B	Dhaka Integrated Flood protection Project	ADB	0.57	0.57
9A	Secondary Towns Integrated Flood protection Project	ADB	0.55	0.55
9B	Meghna River Bank Protection Short Term Study	IDA	1.15	1.15
10	Flood Forecasting and Warning Project	UNDP, Japan	5.70	3.50
11	Disaster Preparedness Programme	UNDP	1.10	1.10
12	FCD/I Agriculture Study	UK, Japan	1.60	1.60
13	Operation and Maintenance study (Phase-I)	UK, Japan	0.60	0.60
14	Flood Response Study	USA	0.92	0.92
15	Land Acquisition and Resettlement Study	Sweden	0.40	0.40
16	Environmental Study	USA	4.04	4.00
17	Fisheries Study and Pilot Project (Phase-I)	UK	3.40	3.40
18	Topographic Mapping	Finland, France, Switzerland, Germany	6.71	6.50
19	Geographic Information System	USA	4.36	4.35
20	Compartmentalization Pilot Project	Netherlands, Germany	17.09	11.84
21/22	Bank Protection, River Training and AFPM Pilot Project	Germany, France	40.00	19.41
23	Flood Proofing Pilot Project	USA	0.30	0.30
24	River Survey Programme	EU	14.70	10.90
25	Flood Modelling and Management Project	Denmark, France, NL, UK	4.39	4.39
26	Institutional Development Programme	UNDP, France	3.60	3.40

(after: Brammer, 1990)

5.2   FAP: 'BIRTH OF A MEGA-PROJECT?'

5.2.1   *PHYSICAL CONTEXT*

Bangladesh is situated in the most active river delta in the world and has the highest density of rivers per capita. The country is the gift of the three main rivers: Brahmaputra/Jamuna, the

largest river in the Himalayan system (extending into Tibet and Nepal), the Ganges and the Padma or Padda. The three combine before draining into the Bay of Bengal. In 1987 and 1988, Bangladesh experienced two truly devastating floods, the latter hitting the country especially hard as the peaks of the three major rivers synchronised within a two-week period (GoB/UNDP, 1989). The discharge of the Brahmaputra-Jamuna, on average 19,000 m^3/s, approached 100,000 m^3/s in 1987/88 (cf. 12,600 for the river Rhine's peak as it reached the Netherlands in early 1995). The 1988 flood, a 1 in 100 year event, put 60% of the country under water for two weeks, damaging 7.2 million homes, affecting 45 million people and causing ´2300 immediate deaths' (Wood, 1999).

Bangladesh has a very low gradient. Over 90% is alluvial lowland (Raqub Ahmed in Gain 1998). The North Central Area, where Tangail and the capital Dhaka are located, is very flat, between 18 and 4 m above sea level (except the Madhupur Tract). Thus, as soon as the flood stage is reached, enormous tracts of land are flooded. This brings irrigation and sediment, but also erodes alluvial soils. Riverbank dwellers are plagued by riverbank erosion, especially in the monsoon (wet) season, which runs from June until October), accounting for 90% of inflow. The soft soils are highly unsuitable for building structures, which makes 'the cost of building groins [*sic*] and revetments (...) very high' (Khalequzzaman, 1994)

An example is the Jamuna Right Bank Embankment (RBE), an extensive levee built in 1960 to stabilise the river Jamuna, whose width averages 10 km. The embankment broke in 1987-88. Sudden bank erosion, worsened by human-induced erosion to enlarge living space, displaces huge numbers of residents to *char land* (unstable islands), *khas* (state-owned) land and to the cities, notably Dhaka, intensifying urbanisation.

Geologically, the Tangail area, along the Jamuna, has been formed by faulting and tilting. Floods also carved out the landscape: the Brahmaputra-Jamuna, for example, has shifted westward by 100 kms in the past 200 years and can cut a 30-50m deep channel in one flood event. Morphological processes can give rise to opening and closing of tributaries, such as a shift of the Jamuna into the Dhaleswari offtake. Other offtakes are silted up such that upstream discharge is almost zero. This dynamic of opening and closing channels proved a vital factor for the survival of FAP-20 in 1995, as will be explained later in this case study.

The FAP-20 area is bounded by the Dhaleswari and Elanjani rivers in the west, Pungli in the east and Louhajang and Gala *khal* (channel) in the north; the south boundary is an existing road between Silimpur and Karatia. Climate is dominated by monsoon winds: a cold and dry Northeast monsoon rains from Nov-Feb, while a Southwest monsoon (June-October) brings heavy rainfall. While pre-monsoon rains fall in March, April and May, flooding in the Jamuna and its tributaries results from a long monsoon rainfall season and snowmelt from the Himalayas. At times more important is local rainfall in the Dhaleswari and Old Brahmaputra, both meandering smaller rivers that rapidly run drier in the winter season as rainfall tapers off. Backgrounded by the problems posed by the flood (*kharif*) season, in which *aman* rice is produced.

But monsoon rains are not the only climatic worry for Bangladeshis. In the *post-monsoon* season, all local rivers are just drains fed by excess irrigation water and ground water - no new water comes in to replenish the flow. Especially the end of the dry (*rabi*) season, April/May, brings problematic droughts every three to four years (CPP Interim Report 1995, Annex 6). According to Boyce (1990) too little water is a greater threat for the area's 250,000 people (living in 202 villages) than too much.

The growth in agricultural production in this area has come from irrigated (groundwater-fed) winter crops rather than from monsoon crops fed by surface water. In light of these extremes, farmers tend to try and diversify their plots between different land elevations to avoid losing harvests to peak flooding or droughts (van Koppen, 1998).

Amid the many mishaps striking Bangladesh and other developing countries every year, the reason why this particular hazard reached the top of the international agenda seems fortuitous.

According to Chowdhury (1992) what spurred the Bangladeshi President, General Ershad to initiate a flood protection scheme for Dhaka and protect order was the fact that the 1988 flood, unusually, affected the well-to-do in the capital, Dhaka: the American Embassy, the model towns and army cantonment as well as his own home. Mme Danielle Mitterrand, the then French president's wife and well known for her interest in social causes, happened to visit Dhaka and Tangail with an international media entourage, and, shocked at the damage, raised the issue with her husband, who in turn was eager to raise France's profile in the world as a benefactor (Boyce, 1990).

Mitterrand promoted the idea of putting an end to floods in Bangladesh - *for good* - at the G7 conference in Paris in July 1989. The G7 duly paved the way for the Flood Action Plan and endorsed the World Bank/GoB Flood Action programme, presented in December 1989 during a specially convened donor conference in London, where donors conducted a 'bidding war' (Dutch consultant, int.) between donors. The political will to fund flood protection schemes triggered no less than eight flood studies, which will be discussed in the next section. The resulting package of 26 projects was tabled in London,. While the World Bank did not fund any of the ensuing flood studies, it volunteered to co-ordinate between the donor efforts.[174] Other donors were the Asian Development Bank, UNDP, the USA, European Union, the UK, Germany, France, Netherlands, Sweden, Finland, Canada, Switzerland, Denmark, and Japan – 15 in all. Norway decided not to support the FAP; but funded a very critical study on FAP by the radical, Sussex-trained Bangladeshi activist-sociologist, Shapan Adnan (Hanchett, 1997, Adnan, 1992).

The Dutch government accepted responsibility for three projects: FAP-20, FAP 5b (the Meghna Estuary Study) and FAP-25 (the Flood Monitoring and Management Project), the latter co-supported by Denmark, France and the UK. According to Dutch interviewees. enthusiasm in The Hague was not great; it was the Dutch Embassy in Dhaka that persuaded a reluctant Dutch government to take up FAP-20 as a way to demonstrate Dutch prowess in water and people management. The Dutch must have been relieved that the Germans (KfW) showed a keen interest to participate in FAP-20. Their original agreement to work on a 50-50 basis later became 2-to-1: Germany shouldered EUR 20 million and the Dutch EUR10 million, while the Bangladeshi counterpart contribution amounted to EUR 2.8 million (*Kreditanstalt für Wiederaufbau*, 2004).[175] This brought in German Lahmeyer as a consultant next to Euroconsult, the main contractor for the Netherlands. Lahmeyer also provided the (Dutch) team leader, Armand Evers as from 1994.

The next Sections sketch how tremendous international overlay impinged on the framing of the floods in terms of cause and cure (selection of alternatives). For this it is important to delve briefly into the domestic and international patronage relations governing Bangladesh which explain how dependence relations play out both within and outside the country.

5.2.2   *THE SOCIOPOLITICAL CONTEXT*

Domestic Patronage: Neo-patrimonialism
Bangladeshi society is highly fragmented – as it were, compartmentalised (Kemp, 2004). There are 'few overarching social loyalties that can provide the social glue needed to develop (…) social and political organisations' (Kochanek, 1993). Kochanek identifies the weakness of political institutions, an authoritarian and unresponsive bureaucratic culture and highly fictionalised political parties as reasons why there is no real threat to a deeply ingrained patron-client system mediating access to and influence on the highly centralised political system (ibid.). Right from independence, the liberator of the realm, Mujib-ur-Rahman, instated a spoils system creating a culture of personal gain (Chatterjee *et al.,* 2006).[176] The bureaucratic culture is very top-down oriented, training of the civil service is very general, one's ascent within the civil service is mostly

based on one's length of tenure or political affiliation rather than merit, and public office is strongly personalised and 'politicised' (Chatterjee *et al.,* 2006).

Bangladesh has a vibrant civil society, evidenced by an impressive number (some 20,000) of NGOs. They are often crisis-driven, but quickly adapt to new topical challenges with creative re-formulation of their acronyms.[177] Several go back to the late 1960s, and only later were 'discovered' by foreign organisations as targets for funding. They tend to be established by the educated middle class with good connections in the power elite (A. Rahman, n.d.). Indeed, NGOs tend to mirror patron-client politics; people follow leaders and look where the money goes. Thus, while awareness about FAP-20 was raised by an intellectual elite organised in NGOs such as BARC and BCAS, it could be expected that many people were following local patrons (NGO leaders) when anti-FAP protest reached the grassroots.

The systemic legitimacy of the Bangladeshi government is still very low. While an independent study shows the poor have great faith in the ability of government to see to their needs (Ali and Hossain, 2006) the interviews suggest that the political sector is universally held in low esteem even by high-level public servants. This is in no small measure due to the tendency for politicians to be in it for the money. Rents obtained from development can be redistributed by legal and illegal means, thus providing the power base for domestic patronage. Politics and aid in Bangladesh are a means of personal enrichment through sanctioned corruption. While corruption and clientelism are also widespread in other case study countries, Bangladesh beats almost anyone, ranking 156th out of 163 countries in Transparency International's Corruption Perception Index 2006[178]. Corruption played a part in subsequent external interventions to reform water agencies.

As Clarence Maloney put it, 'payoff is the lifeblood of the country' (c. in Kochanek, 1993)[179]. Each externally-funded development project quite openly deducts a percentage for the ruling party (ibid.). Business co-opts politics such that loans are routinely forgiven and labour rights practically non-existent (the 'commercialisation of power', see Kochanek in Jahan, 2000).

Securitised decision in a politicised society

FAP began life in a securitised context: a centralised dictatorship, which claimed to create law and order in an unstable, deeply politicised society. Each and every single development project needed President Ershad's signature. While the floods legitimised radical measures, the absence of routine political context made FAP likely to remain undebated after the immediate memory of the flood had faded.

While Bangladesh returned to formal democracy in 1990, the FAP issue was only debated in a Parliamentary subcommittee after the Dutch government insisted on it, feeling 'any controversial subject of such major importance must get 'legitimacy' from Parliament'.[180] Meanwhile, elections continue to be contested and governments systematically undermined by the opposition. A fundamental lack of mutual legitimacy between the parties originates in a dispute about heroes and villains in and prior to the War of Liberation. Until this day, political disputes are dominated by conflicts over definitions and symbols of ethnicity (Bengali vs. Bangladeshi), socialism vs. the private sector, secularism vs. Islam, and democracy vs. a presidential system (Kochanek, 1993). Mudslinging, inducing socio-economic paralysis through *hartals* (general strikes)[181] and endemic political violence between parties is rife. *Jatiya Sangsad* (Parliament) has played a marginal role[182].

The Bangladeshi judiciary has a better standing than Parliament (Kochanek, 2000), but Bangladesh has not succeeded in separating the judiciary from the executive. Judges often have links to senior politicians and lower courts are 'venal' (Roberts and Fagernäs, 2004). This makes it hard for the Supreme Court to contravene the party in power. Also, the legal regime is not very well developed, and competing claims to land ownership can be made with different agencies (Wood, 1995) As the rate of adult literacy is low: 41% of over 15s (HDI, 2003), people are at the mercy of the *literati*. The politics of obstruction and disruption dominate normal political strategy and also pervades university life. Political killings of student (*chhatra*) leaders are the order of the

day, stifling academic life. When I was visiting Bangladesh in late 2000, a student (*chhatra*) leader on his way to his physiotherapist was killed by adversaries in Gulshan New Town. The ubiquity of private security forces underscores the tense climate (author's observations, 2000).

TABLE 5.3   *The four main nationally active political parties (out of 130) in Bangladesh, their claim to fame and their main delegitimising characteristics in 2001.* In the periods not covered by the dates mentioned, a caretaker government was instated, or the country was in chaos.

	period in power	claim to legitimacy	delegitimising claim	current leader and family relationship
Awami League	1971-76; 1996-2001	Mujib's heroic role in war of liberation; got killed (martyrdom)	Sheikh Mujib was in Pakistan during the war	Mujib's daughter, Sheikh Hasina
BNP	1976-80, 1991-96, 2001-	Zia's heroic role in war of liberation; killed	Autocracy	Zia's wife, Khaleda Zia
Ershad	1982-90	Providing law and order; jailed	Autocracy, dictatorship	Ershad's wife
Jamaat-e-Islami	- (in 2001 four-party coalition)	Upholding Islamic values	Fundamentalism, collaboration with Pakistani forces	Azam (persecuted for alleged war crimes)

As the Government of Bangladesh has proved unwilling to cede much control to allow administrative decentralisation and economic liberalisation, local government and the market sector continue to be weak. Patronage extends to the business sector and consultancies; debts are seldom repaid. Industrialisation has been state-led and the state is extremely reluctant to loosen its grip on the economy (Kochanek, 2000).

Unhelpfully, local politics proves as troubled as national politics. Like Egypt, Bangladesh is a textbook example of what Weber has labelled 'patrimonialism', a form of traditional domination where the ruler, supported by an administrative staff and military forces, treats the realm as his personal property, handing out privileges and favours (Islam, 2006).

Given this culture, it is not surprising that the key water institute in Bangladesh has a bad name for corruption and clientelism - but NGOs are not exempt from these charges, either.

The key actor in Bangladesh's water management is the public works department, the Bangladesh Water Development Board (BWDB). The Board, a semi-autonomous public agency under the administrative control of the Ministry of Water Resources, emerged in 1971 from the division of the East Pakistan Water and Power Development Authority (EPWAPDA) and split into separate water and power divisions in 1972.

The Board derives its legitimacy from erecting large structural works and technical expertise. There is an increasing trend on the part of the donors for development projects to involve *NGOs* to promote development. In the Netherlands this has been institutionalised through co-financing institutions, which distribute ODA money through private channels. Of those, ICCO and NOVIB are the largest active in Bangladesh. The funding obtained from those co-financing organisations to a crucial degree enabled Bangladesh NGOs to voice their point internationally. In FAP-20 there was likewise an allocated place for NGOs, notably the Grameen Bank, famous for introducing micro-credit to the poor.

Yet, when FAP-20 commenced, the BWDB and the NGOs enjoyed very low mutual legitimacy. NGOs accused the BWDB of pilferage and corruption, and of being unable to listen to 'the people', given their dismissal of the protests. The Dhaka NGO Shamunnay, for example, characterised the BWDB's culture as 'secretive, arrogant and "exclusive"' (Shamunnay, 1996: 81).

From the perspective of engineers, NGOs lack the necessary expertise in water management, and engineers are keen to point out their less successful forays into water management. Lack of expertise is a major delegitimiser in the eyes of the engineering/consultancy community[183].

A negative mutual image thrives on mutual isolation and indeed, in 1993 NGOs and the Government of Bangladesh (GoB) were not talking (IOV 1993). For their part, several Dutch consultants I talked to in late 2000 were happy to level criticism at *both* NGOs and the GoB. A Dutch consultant interviewee labelled Adnan Shapan, the NGO sociologist-activist, as a 'nincompoop' and a 'pest' and the BWDB as 'hopelessly corrupt'. Another Dutch consultant noted that when BWDB engineers turn up at all, they are 'arrogant and give orders'. In the context of the latter, several interviewees feel too much money was thrown at Bangladesh without tangible results. A third Dutch consultant advocated cutting aid funds by a third, to force more rational spending on the part of the Bangladeshis.

Power, expressed in 'fear or favours' (Kemp 2004), spills over from the domestic to the transnational level. There is a strong suspicion that international contractors 'buy' key people in Government of Bangladesh which help them to new projects by which a highly competitive international construction sector can survive (in Smit, 1993, and interviews). This is especially worrying as contractors are in fact preparing Terms of Reference and national policies[184]. But why is Bangladesh so dependent on the foreign aid community? To understand how this is possible, we have to look at Bangladesh's position in the international arena.

External Patronage

As Ferguson (1994) has shown for Lesotho and Mitchell (1995) for Egypt, the 'facts' can be stacked such that a country seems to be badly in need of international development assistance - in spite of both these countries doing rather well economically. Bangladesh for its part has been internationally portrayed as the epitome of dependence on everything ever since it was born: on India, which surrounds it on three sides; on the regional rivers, 90% of whose catchment is outside its territory, and ultimately on international aid[185]. While, as we shall see, a quite different image of Bangladesh is possible, successive governments have done little to change the image of dependency, as the picture of Bangladesh as a helpless, hapless victim of circumstance, born in famine and floods – continues to strike a chord with donors (Bradnock and Saunders, 2000). When global warming came on the global agenda, Bangladesh again was a natural candidate for global concern given its sense population - 'by the time global warming is likely to be well-established, Bangladesh may well have a population density five times that of the densest developed country, Netherlands' (Myers, 1995 q. in Bate, 2001: 56). A dependent image, constantly at the mercy of others makes it attractive for Bangladesh not to take responsibility and ownership of flood mitigation efforts, while creating an expectation of support that make it impossible for donors to abandon the country. External donors[186] and recipients are locked in a Catch-22 that not only keeps Bangladesh in a state of dependence, but also sustains a redistributive corruption culture. The development projects bring in money and capacities absorbed by amazing adaptability of both the GoB and NGOs to international development fads. Bangladesh is thus the dependent 'downstream riparian' to an international flow of aid money. This international overlay is reflected in flood policy which, like the flood itself, is predominantly transnational (BELA Bulletin, 1998):.The fact that the FAP project was so clearly donor-driven reinforced this sense of imposition and victimisation, as if the Bangladeshis had no say at all in the FAP affair. As a rule, donors bring in consultancies from their own country, and it is foreign consultancies who tend to draw up the Terms of Reference for new tendered projects and the new national Water Policy document is drawn up by a UK consultancy, Halcrow, whose especially productive connections within Bangladesh government did not sit well with some interviewees.

Yet, while the GoB will not bite the hand that feeds, donors only dominate policies on a temporary (project) basis, so that the continuity of the domestic configuration may ultimately win

out. Two key players, K. Siddiqi (FPCO, the project management) and Ainun Nishat (IUCN, the nature conservation NGO) insist they were involved in 'everything' (pers. comm., 2000). The next section provides more detail on the selection of alternatives leading up to FAP and FAP-20.

5.3 FAP-20 SELECTION: A COMPROMISE BETWEEN 'DRY' AND 'WET' MANAGEMENT

5.3.1 OSCILLATING FLOOD MANAGEMENT REGIMES

Flood policy in Bangladesh can be said to have oscillated between a strong belief in flood control (zero floods) and a more cautious small-scale, living-with-the-floods approach (zero control) - a 'dry' and a 'wet' frame (ISPAN, 1992; Faaland *et al.,* 1995).

The 'wet' approach appreciates that not all river floods are necessarily bad floods. *Barshas,* 'good floods', or 'inundations' (Nishat, n.d.[187]), are those generally perceived as doing more good than bad, supporting soil fertility, fish catch, navigation, ecosystems and ground water recharge etc. They affect a fourth to a third of the land surface each year (Brammer, 1990). When inundation causes damage to property and crops, disrupts communication and brings harmful effects to human beings as well as to flora and fauna, however, they are *bannas/banyas,* 'bad floods'. Flood proofing fits with this 'wet' approach'. The 'dry' attractor on the other hand seeks to control all floods, emphasising the negatives of flood: fatalities, mass destitution and displacement.

The '*wet vs. dry*' debate can also be read as a clash between two 'concepts of (water) control´: it reflects a stand-off between a preponderance of government-supplied and owned flood control infrastructure (dry) and NGO-provided and privately owned tube wells for irrigation (wet). Large infrastructural works are easier to control, and also to cream off for *bakshish*, while tubewells are far more scattered.

In more recent years, a corresponding debate has emerged whether agricultural development should be *surface-water* or *groundwater* based. Rice constitutes on average 71% of Bangladesh's agricultural output[188] and Dhaka and Tangail are in the highest producing areas.[189] But should this production prioritise protected cultivation of rain-fed T(ransplanted) *Aman* rice supplemented by surface irrigation in summer or groundwater-fed *boro* winter rice? (Wood, 1999, for flood and crop calendar see Faisal and Parveen, 2004).

An argument favouring surface water is that the expected gains of groundwater irrigation are predicted to level off later in the 21st century (UNDP, 1995). Moreover, arsenic in ground water may lead to fatalities when consumed over longer periods of time. This will mean a greater emphasis on flood control/controlled flooding. In the course of the chapter, we shall encounter more dimensions of those 'attractors' (Table 5.4 below):

The international overlay has historically played a key role in flood policies in Bangladesh and its predecessor, (East) Pakistan. How did donor preferences influence the oscillation between the two flood management attractors? When Bangladesh was still East Pakistan, the report by an American mission led by Krüg had to the establishment of EPWAPDA, the predecessor of BWDB, in 1959, and the Master Plan of 1964, an ambitious programme of 59 major structures, 6-7000 kms of dikes and 4300 km of drainage channels, polders in the flood plains to protect crops from flooding and enable a Green Revolution. The Master Plan was drawn up in Pakistan and for Pakistan, while most BWDB engineers involved in FAP were trained in Pakistan (Pitman, 1994).

TABLE 5.4   Contrasting concepts of flood control: different dimensions. Author's inventory inspired by ISPAN (1992) and Faaland et al. (1995).

	Protection paradigm	Resilience paradigm
Type of development	**Dry**	**Wet**
Governing approach	Control of water and people	Adaptivity, decentralised management
Technical approach	Barrages and embankments 'structuralist'	Flood proofing 'adaptivist'
Preferred scale of intervention	Large	Small
Food security strategy	Foodgrain self-sufficiency	Diversification
Knowledge base	Science and expertise	Lay knowledge
Supporters	Land-owning farmers, industry, engineering and construction industry, the World Bank, engineering consultants	Peasants, fishermen, country boat operators, NGOs, sociologists
Key agricultural input	Surface water	Groundwater

World Bank (International Bank for Reconstruction and Development) reviews conducted in 1966 and, upon Bangladeshi independence, in 1972 supported the aim to reach agricultural self-sufficiency. But the Bank wanted smaller-scale, quick-yielding projects, and promoted a programme for low-lift pumps and small-scale irrigation. In 1983 a UNDP-sponsored comprehensive Agriculture Sector Review led to a Water Sector Master Plan in 1986 which again prioritised for small-scale irrigation development in the safer dry season (Brammer, 1990).

While the impression often presents itself that *all* policy change in Bangladesh is donor-driven, some of the change in thinking was at least in part self-propelled. After the 1987 flood, BWDB released a fairly self-critical internal report, 'Floods in Bangladesh 1987' which suggested more heed should be given to knowledge. Also the original National Water Plan Phase I of 1986 showed a moderate approach to flood control. This however was drowned out by the 1987 and 1988 floods triggered a pendulum swing back to the 'control' paradigm. Pitman (1994) argues that the Bangladesh government saw the FAP as a way of 'revamping' the 1964 Master Plan, and in so doing regain control 'from what they saw as the unfortunate effects of privatisation of minor irrigation' (Pitman, 1994: 3).

After the democratic transition, the new government commissioned a Task Force, who in its four-part report (Task Force, 1991) recommended a moratorium on structural works. The report went unheeded. Even as FAP was modified, the perspective of water as a *problem* rather than a resource resonated with the GoB and lingered throughout FAP. The next section will go into this in further detail.

5.3.2   *FAP SELECTION OF ALTERNATIVES*

The dictatorial, military conditions under which FAP was approved suggests a level of depoliticisation that does not bode well for a range of domestically generated alternatives. Internationally, however, the donor scramble to release Bangladesh from flooding provided plenty to choose from. It led to a spread of eight international plans drawn up after the 1987 and 1988 floods, in a fascinating lead-up to the World Bank's final flood management package. The plans clearly reflect the two main flood management attractors ('wet' and 'dry') introduced above.

It emerges from interviews that the selection of alternatives was based on personal as well as technical considerations. From the French side, the economist Jacques Attali led a team of 30 experts to draw up a 'permanent solution' to flooding in Bangladesh. My Dutch and Bangladeshi

interviewees were unanimous on the ineptitude of the French team. An interviewee from the Dutch Embassy in Dhaka claimed:

'Attali knew nothing about Bangladesh. We were fed up to the back teeth with them. They wanted to be involved but not to spend any money on it. Basically theirs was a bad plan' (Dutch embassy interview).

The French report, the *Pre-feasibility Study of Flood Control in Bangladesh*, sought fully-embanked flood prevention and industrialisation, following in the footsteps of the 1964 Master Plan drafted by the GoB together with IECO, an American consultancy. The floodwall programme sought to embank the rivers, similar to the Mississippi (Chowdhurry, 1992) putting in 3-4000 km of embankments, as much as had been built in the whole period up until then. It would have cost anything between $5.2 and $10.1 billion, with $160-180 million in Operation and Maintenance costs each year 'in perpetuity' (Boyce, 1990: 421) presenting Bangladesh with a huge debt. Had the French proposal gone ahead, there would indeed have been question of a 'mega-project', a technical fix to deal with an 'Act of God'.

In defiance of this ´dry´ river domination and control approach, the Americans took the view that embankments constrain river discharge and are ultimately self-defeating as it causes sediment aggradation of the river beds and increase flash flooding, so that continuous dredging and re-excavation is needed (Khalequzzaman, 1994). The US Army Corps of Engineers, the American counterpart of the Bangladesh Water Development Board, shifted from a technology-oriented to a behaviourist paradigm in the 1960s, which means trying to keep people out of the floodplain through stimuli (zoning) and education rather than trying to keep the river out. This would fit the government's domestic flood frame - as we saw, the government blames irresponsible settling. But as James and Pitman (1992) note, non-structural measures such as zoning are also unfeasible, due to, among other aspects, the lack of flood-free land. You cannot travel for more than 5 miles in Bangladesh without encountering a surface water body. Densely packed poor households tend to live in the floodplain where land is cheapest. If floodplain dwellers were evicted from the floodplain, where would they go?

Therefore, Peter Rogers and David Seckler, key water management experts on the American team, saw river training (taming the floods) as technically and economically unfeasible, arguing instead that Bangladesh not so much has a flood problem but a *poverty* problem. The way to reduce flood vulnerability was to increase incomes through expanding irrigation. The study proposed efficient flood warning system and took an integrated, pan-regional (South Asian) perspective to flood management. This made USAID's ´wetter´ *Eastern Waters Study* (Rogers *et al.,* 1989) arguably the most sustainable, environmentally aware and 'holistic' proposal out of the set (Shamunnay, 1996), and addressed the GoB's external 'flood frame' which lays blame at the doorstep of India and Nepal. However a regional solution was also the most politically contentious, as it relied on Bangladeshi co-operation with India at a time when the regional superpower had just declined to extend its river-sharing agreement on the Ganges (Padma) with Bangladesh.

India dominates the regional, mutually interdependent *hydrosecurity complex* (Buzan, 1991, Ohlsson, 1995), outnumbering its neighbours in terms of demographic, military and economic power. This permits the country to pursue a divide-and-rule strategy in the region, concluding agreements only when India wants to and only with one neighbour at a time (Crow, 1995). In 1974-5 India unilaterally built the Farakka dam to divert more water to its seaport Calcutta (West Bengal). Bangladesh, as the downstream riparian to three major rivers of which it controls only 8-10%, claims upstream infrastructure has had a severe impact on water extremes, exaggerating both flooding in the wet season and desiccation in the dry season.[190] Bangladeshi protest to the UN led to the aforementioned Indo-Bangladeshi treaty, but Bangladesh feels this nascent international *regime* still gives the country very little influence on Indian upstream decisions (ur-Rashid, 2005).[191] The U.S. study was dismissed out of hand for being too friendly to India. A senior Bangladeshi expert questions the integrity of the team leader of the USAID study, calling him a 'liar'.[192]

Around the same time, the Japanese produced the *Report on Survey of Flood Control Planning in Bangladesh*. This plan was similarly sceptical of large structures, emphasising urban protection and flood forecasting instead. A Chinese study, which compared the Ganges and Brahmaputra to the Yangtse, has remained confidential, even to professor Ainun Nishat who was involved in it on the part of Bangladesh (Haggart, 1994). It is clear however that the Chinese, like the Americans, have abandoned the control orientation.

Three more bilateral regional studies were drafted in which Bangladeshi flood experts worked together with India, Nepal and Bhutan respectively.

Finally, the United Nations Development Programme (UNDP) facilitated a flood policy study and a flood preparedness study (UNDP, 1989), carried out by local and expatriate consultants and completed in 1989. While it also advocated regional co-operation, the study was closer to the French study, recommending embankments and river training, but placed a heavy emphasis on controlled flooding which requires embankments, but with more regard for eventual drainage of trapped monsoon water. This emphasis led to an integrated flood control, irrigation and drainage (FCDI) approach being taken in about half the ensuing FAP projects.

The UNDP/GoB study came out on top: its Eleven Guiding Principles (UNDP, 1989) combined controlled flooding with nods at non-structural works and participation with river training and channelling as national flood policy precepts. The GoB enacted these Eleven Principles and in November 1989, the World Bank and GoB collated the French, UNDP, USAID and Japanese reports into a Flood Action Plan, with a strong bias towards the UNDP study. There was a significant modification though: while the original UNDP programme proposal was in the same order of magnitude as the French plan, costing $7.5 billion, the total budget for FAP was soon whittled down to $200 million.

About 10% of this budget went to FAP-20, a project that for all practical purposes exported Dutch 'poldering' technology in both its social and infrastructural sense.

5.3.3   COMPARTMENTALISATION: SOLUTION IN SEARCH OF A PROBLEM?

Like many other projects started under the FAP banner, FAP-20 would very probably have gone ahead with or without FAP (Nishat, quoted in Shamunnay, 1996). Both Dutch and Bangladeshi interviewees claim that even before FAP, it had been decided that Tangail, on the Jamuna´s left bank, and Sirajganj on the right bank would be selected as sites for experimental compartmentalisation. The Project Identification Mission in 1989, which included members of the FPCO (the Flood Plan Coordination Organization, created to oversee FAP) and the assisting international Panel of Experts (Adnan *et al.,* 1991, 1992) merely formalised that earlier decision. The planned reinforcement of the Brahmaputra Right Bank Embankment (BRE) became FAP 21-22, taking up a full fifth of the FAP budget.

Compartmentalisation was proudly presented as a Dutch innovation. Indeed the Dutch speakers at a conference I attended in Dhaka in November 2000, organised by (Dutch-funded) Dhaka environmental consultants EGIS and the GoB, did not cease to emphasise the Dutch self-image of providing world-class flood management expertise in its fight against water.

Dutch educational and technical assistance to Bangladesh goes back to its independence. Several key Bangladeshi players in FAP-20 have pursued part of their education in the Netherlands, either at IHE Delft or ISS The Hague. In the course of Dutch involvement in Bangladesh, it has been increasingly recognised that in a subsistence society it makes little sense to keep the water out at all costs. Instead, Professor Wybrand van Ellen of Delft, struck by the similarity of the Bangladesh Southwest (Khulna Jessore) to the flat and marshy Netherlands landscapes developed the idea of compartmentalised polders with British flood experts Hugh Brammer and Jim Dampster (interview, Dutch consultant, 2000). All three men were part of the Panel of Experts and the idea was more or less implemented as proposed in different FAP

projects: in FAP 4 (Khulna Jessore), FAP 3.1 (Jamalpur) FAP–20 (Tangail), in Central Bangladesh. The Tangail area was to be divided up into sub-compartments which were fitted with regulated inlets and outlets. As FAP-20 was an agricultural scheme, a sub-Compartment comprising Tangail Town was originally not planned for, but once created proved the most popular flood defence intervention.

While full control seeks to minimise residual risk of damage in extreme events, a controlled flooding regime allows part of the area inside the embankment to flood at lower water levels. Inlets allow floods into the area for natural irrigation and fertilisation, and promote fish growth at required levels. Breaking polders up into different subcompartments, using existing roads and bridges, would make it possible to fine-tune water management, flooding only those areas that need the water and retaining it for as long as its users need it before draining it to the river. This made it possible to bring in extra water in early monsoon, and shut excess water out in the high monsoon season. As the rice crop grows and water rises, higher levels can be allowed, while at the end of monsoon the inlet would be shut to allow drainage, so that post-monsoon crops can be planted early. The embankments surrounding a compartment would have to withstand most, but not all floods, so that a flood would inundate agricultural areas but not (or not much) the urban and industrial areas (Euroconsult/Lahmeyer, 1995).

FAP-20 not only sought to address the regulation of the flood for irrigation, but also the *drainage* aspect by rehabilitating canals. Tangail area, the FAP-20 site, may have the lowest rainfall of the country, but it is still a very considerable 1550mm/y. In the FAP-20 area every few years the heavy September and October rainfall gives rise to runoff congestion. When rainfall is extensive, the area becomes saturated, local flooding takes place and drainage is insufficient.

Controlled flooding thus seemed a fair compromise between the "structuralist" control school of thought and the "adaptivist" living-with-the-floods people. Indeed, the technology itself was hardly revolutionary anymore for Bangladesh – it was tried in different Dutch projects (Wester and Bron, 1998) and also in the World Bank-funded Right Bank Embankment rehabilitation plan (World Bank, quoted in Boyce, 1990). Moreover the Panel felt they had the perfect institutional solution to mobilise thousands of farmers to co-ordinate their preferences: the Dutch polder model.

5.3.4   SELECTION WITHIN FAP-20

The Dutch sought to move compartmentalisation beyond the expected success of the FAP-20 project alone. Its Terms of Reference see FAP-20 a *demonstration* project: if the pilot project were found feasible, the concept would be replicated in other parts of the country and in so doing revolutionalise flood management in Bangladesh and elsewhere. To validate the idea, a series of adjacent compartmentalisation projects along the Jamuna were to be tested.[193]

As we shall see, the 'flagship carrier' label has come back to haunt the project, while the comparative experiment was already compromised at an early stage, As FAP-20 was formulated, three areas were handpicked: Tangail, Sirajganj as well as Jamalpur, which was also the site of the FAP 3.1, one of the 'main studies' in FAP. Jamalpur was dropped quite early, but Sirajganj was in for several years. The original idea was to have compartmentalisation projects on both sides of the Jamuna with the Sirajganj project site to be administered by NGOs, and indeed Water User Groups helped identify subcompartment sites in Siranjganj.

Sirajganj was eventually dropped before the project's inception, officially because the GoB did not produce a written intention to ensure the stability of the Brahmaputra Right Embankment, so that the locations might flood anyway should the Brahmaputra Rught Embankment (BRE) break again. The Jamuna´s energy has an eastward tendency so that the right bank was under much more pressure than the left bank. By comparison, the Tangail area is a relatively sheltered area.

The German donor also blames the lack of funds for the deselection (KfW, 2004).[194] Dropping Sirajganj however deprived the experiment of any 'control group'.

The project was thus limited to a pilot in Tangail. To discuss the *institutional* challenges of compartmentalisation approach at some greater depth, the next section will go into a core element of FAP-20: participatory management.

5.4   FAP-20 PARTICIPATION AND OPENNESS

5.4.1   *WIDENING PUBLIC INVOLVEMENT*

'The government was talking about enacting a law to ensure people's participation. It was as if the government were saying: 'We will set up a committee headed by so-and-so who will tell you to participate.' We (USAID) almost fell off our chairs when the conference secretary responded to the idea (...) saying 'We've decided that if participation is going to work, it has to be voluntary' (Pitman, 1994).

While India and Bangladesh are formally democracies, South Asia has been plagued by 'antiparticipatory centralism' (SAARC, 1992). When FAP started at the turn of the nineties, *all project information was securitised*. As Keith Pitman, an American consultant, related in a USAID forum on participation: 'For example maps were restricted. Field engineers had to go to Dhaka, make a tracing of a map, and then go back to the project' (Pitman, 1994). Information provision to the general public was likewise minimal in this early phase and the topic was undebatable: 'We could not talk' (*ibid.*).

This was meant to change after the democratic transition, but 'many began to wonder whether the government was trying to keep information from them' (Hanchett, 1997: 281). The first review process for FAP in 1990 took place behind closed doors; only civil servants and the Panel of Experts could attend, with confidential minutes. A FAP consultant sympathetic to the NGO position leaked internal project memos, which information ended up in Shapan Adnan *et al*'s 'offending' 1991 and 1992 FAP report funded by Norway (int. Dutch consultant). However, things slowly improved when four annual conferences were held in Dhaka, the quite critical discussions of which were commendably recorded in (English-language) publications.

Only in 1992, on strong donor instigation, an open review of the Flood Action Plan was organised, a five-day meeting held at the Prime Minister's Office in Dhaka, which provided an opportunity for some 600 journalists, NGOs and critics to submit written questions (Hanchett, 1997). A proceedings of this Second Conference was published.

The third conference in 1993 was organised by the Bangladeshi government. Questions again had to be written down and thus could be ignored by the chief engineer (Pitman, 1994). The fourth of those conferences however was repeatedly delayed and its proceedings not widely published. As the Final Report notes, this was a critical moment as FPCO was supposed to be dissolved at the time. The UNDP subsequently distanced itself from the donor-GoB statement following it.[195]

While FAP has taken much criticism for failing to consult local stakeholders, in fairness it should be noted that FAP-20 was unique in the Flood Action Plan in seeking to address the institutional aspect head-on. Indeed, the identification report states that 'unless there is local participation from the outset, it is doubtful whether compartmentalisation will ever be practical and viable' (FAP, 1990).

Like compartmentalisation, the idea of 'institutional poldering' was not earth-shattering: elements of Dutch 'consensual democracy' have tentatively been tried in Bangladesh in the Dutch-funded Early Implementation Projects of the 1970s and 1980s. BWDB officials claim that informal consultation between engineers and recipient communities (notably landowners) have been going on for decades, and they must have thought they were doing the same thing here.

But in the case of FAP, the social engineering was to work differently: polder committees were to be formed with different stakeholder groups. FAP-20's concept of multi-stakeholder consultation did not make immediate sense to the Government of Bangladesh, the people of Tangail – and perhaps, if truth be told, not even to the Dutch consultants. Indeed as the project ran on, the original idea was somewhat obscured from sight.

5.4.2   THE CONSULTATION ON FAP-20

The history of participation sketched above indicates that the Bangladeshi government was not initially very minded to dialogue with local stakeholders in the context of FAP-20. The donors however insisted on it - apart from such noble considerations as democratic accountability, cost was a key factor as compartment management in the past had been extremely costly and ineffective.

The meaning of 'participation' changed considerably in the course of the Flood Action Plan, even in the early stages of formulation. In 1991 Euroconsult, the FAP-20 consultant started a large consultation asking residents which water problems they encountered and what solutions they preferred. The original idea was for the people of Tangail to decide to which extent they wanted controlled flooding. Polls systematically show that people who are not protected would like to see embankments. One reason is that increases their social standing (various interviews; Nishat, 2004). Once embankments are in place, drainage problems appear and people will try to offload the excess water on others. During the project, according to a Bangladeshi consultant some people asked for more structures. Similarly it appears from FAP-3.1 (Jamalpur) that people inside embankments are generally happy for the embankments to be there. The embankments, then, could count on a support base among the farmers. In this respect, the NGOs seemed to have been disingenuous in opposing embankments full stop.

On the other hand, because of the existing (porous) horseshoe embankment, Tangail was already fairly safe from flooding, so that many stakeholders there were perhaps not too keen on more flood protection.

There was logic to the options put to stakeholder in the consultation exercise. During the lifetime of a compartment, requirements of different sectors may change, and popular demands follow a predictable pattern. Demands for flood protection are likely to increase as an area becomes more economically developed. The degree of protection itself also gives rise to socio-economic change, such as urbanisation, which in turn will give rise to different demands. Based on this reasoning, Dirk Frans, a sociologist with a background in engineering, devised four (progressively drastic) water management options, lending them a dynamic for the future:

A)   improved drainage
B)   option A + throated inlets where to mitigate danger of additional flooding
C)   option B + gated inlets and extra development works to re-excavate *khals*
D)   full flood control (Kvaløy 1994)

According to one Bangladeshi expert, FAP-20 was an institutional development project until the engineers took over (interview Bangladesh consultant 2000). The engineers, it turned out, had a quite different view of participation. Social research of necessity takes longer and may yield 'undesired' results. While project initiators saw sociological research as a way of 'selling' a project on its intended beneficiaries, that is not what sociology is for (interview, Dutch consultant). Impatient with the time-consuming participation process, the Board started to keep an eye on the clock.

As a result, the Needs Assessment and Consultation were curtailed under time pressure. Interviews and the work of Adnan (1992) suggest that the outcome of the consultation might have something to do with it, too. The do-nothing and drainage options, which emerged as

popular from the consultation, would require the least engineering effort. The Bangladeshi engineers had different ideas: they simply dismissed the do-nothing (or little) option, while the Dutch Embassy's First Secretary, a Wageningen-educated irrigation engineer, was away (interviews, Dutch consultants).[196] According to an internal memorandum leaked to RAS,

'Flood Protection is a government policy which was reiterated in the Eleven Guiding Principles of the Flood Action Plan..., the option of no flood control for Tangail need not be discussed with the people' (q in Adnan, 1992). In all, 53 water control structures were built in the FAP-20 area

5.4.3   TESTING THE POLDER MODEL IN TANGAIL

The Eleventh Guiding Principle for FAP says: 'Encourage popular support by involving beneficiaries in the planning, design, and operation of flood control and drainage works'(GoB/UNDP, 1989). The FAP-20 project foresaw a form of participatory decision-making in the day-to-day management of the compartments, envisaged as the Bangladeshi version of the Dutch 'polder model', a consensual, egalitarian model of decision-making, predicated on the idea that if not everyone is on board in managing a polder, everybody may drown due to the obstruction of a minority.

In 1992-93 the consultant crafted a system of water management committees at compartment (CWMCs), sub-compartment (SCWMCs) and *chawk*-level (Water User Groups) after the Dutch *waterschappen*. Committees would perform operational tasks, conflict handling, drafting maintenance plans and make decisions on preferred gate settings.

One Water User Group member would liaise with project staff and local government (*Union Parishad*s) at subcompartment level, while the CWMCs had Water Board staff and local personnel working for Central Government. Much like multi-stakeholder platforms (Röling, 1994, Steins and Edwards, 1998, Warner, 2006) these allocate specific seats to four interest groups:
- users and project-affected persons (PAPs)
- NGOs
- (central) Government Organisations
- Local government

The   first   group   consisted   of   farmers,   fishermen,   women   and   landless[197] (Euroconsult/Lahmeyer *et al.,* 1995).

In 1995, water user groups had been formed in three sub-compartments. De Graeff (n.d.) reports that in the first year of their existence, *chawk* committees took care of the new structures and resolved some conflicts between farmers and fishermen. Yet, after anti-FAP protests focusing on Tangail, which will be expounded later, the donors pressed the GoB to make a better job of participation and to involve more disciplines in FAP. Engineers however felt unease at the unscientific nature of public involvement in technical discussions on planning, but a consensus developed on local people being 'partners' of professionals.

As a result, the scope of participation broadened. At first the Flood Plan Coordination Organisation (FPCO) in charge of FAP thought it sufficient to consult with farmers only while "taking into account" other interests (IOV, 1993) – which meant the fishermen were not taken very seriously. The Euroconsult system had allocated seats to farmers as a homogeneous group. In an earlier review however the World Bank had already noted found that in poldering projects, farmers at different land heights had quite different views of the ideal water level. "The need for organizing farmers numbering in the tens of thousands to set up equitable polder operations is one of the great drawbacks of the polder technology for wet season agriculture'. The new type of participation developed duly dfferentiated between highland, midland and lowland farmers. Yet, according to an evaluation by Datta (Datta *et al.,* 1997), who was also involved in the Mid-term review, this new system was not well known to the stakeholders and rather ineffective. The

Dutch development assistance inspectorate (IOV)´s report (1993) notes the legitimacy of the polder-style decision-making process is in doubt in light of a poorly informed population. This makes the population potentially more amenable to manipulation - both to donor, GoB and NGO arguments. A Donor Mission in 1997 found that sluice-gates were operated in places by project staff rather than WUG representatives. By that time, 100 *chawk* committees and 15 sub-compartment committees had formed (Lewins and Robens, 2004).

The system also showed little sensitivity to the marked power differences within rural communities[198]. Both donor and NGO conceptions of 'the people's wishes' therefore wanted a more careful approach. As Dirk Frans noted, the people are not always right but neither are the engineers (interview, 2000).

5.4.4   OPERATION AND MAINTENANCE: WHO REPAIRS THE BREACHES?

Another interpretation of 'people's participation' in FAP-20 was their involvement in Operation and Maintenance. The project uniquely involved a component of 'people's O&M' making use of people's familiarity with such interventions. Groups of local people, Local Contracting Societies, both male and female, could be hired to work on the structures, which also circumvented institutionalised corruption percentages. Clearing out channels and repairing embankments is hard work of bad repute, and contracted work easily drives up cost. In FAP 20, landless workers and women erect and repair levees instead, at a fee.

Curiously, while the problem has been known at least since the 1970s, donors have not insisted on better O&M of the projects they funded. The 1993 Dutch Inspectorate's Mission, for example, explicitly recommends redirecting the donor efforts to O&M of existing projects, but this recommendation was not enforced (IOV, 1993)[199]. This seems to be the case for FAP-20 as well - while the Dutch donor maintains there is a considerable amount in the budget for O&M, nothing was actually happening on the ground in 2000.

As a result, no one will be motivated to remove silt clogging up offtakes or pay the sluice-gate operator after the project is over. When there are visible dangers, like when in 1995 the Jamuna broke through to create a new inlet for the Dhaleswari, people did not wait for the BWDB to repair the local embankment.

While the move to set up local contracting societies can be lauded as pro-poor, this approach frames 'participation' as a rather convenient way for BWDB to shed responsibility for Operation & Maintenance. But hiring people as labourers does not give them influence on the project and in this sense does not score high on any participation ladder. It is fair to say the societies are an appreciation the experiential fact that, in light of the Water Board's poor O&M record, in practice '(t)he only ones who do O&M are the farmers themselves. In 9 out of 10 cases they are right.' Jennifer Duyne (1998) has pointed out many impressive and well-co-ordinated local flood management initiatives in Bangladesh. Some of those initiatives may in fact be less than spontaneous, but compelled by *zamindar*-type feudal arrangements for compulsory maintenance by sharecroppers. In pre-colonial times mud banks were erected maintained by landlords who levied taxes on the population. Under British rule communities learned to wait for the government to mend breaches in embankments rather than display initiative. But BWDB is not known for solid operation and maintenance works on its 7,500kms of embankments unless there is question of a serious flood. Any available funds tend to be "transferred to new capital projects" (UNDP, 1995). In fact, a subsequent World Bank project formalises the transfer of O&M to its users (World Bank, 2001).

According to the FPCO-produced *Guidelines for participation* (version 1994) responsibility for and ownership of any water structures was to remain in the hands of the state (Hanchett, 1997: 286)[200]. The struggle for space however is always present and eats away at the planning and implementation of projects. Embankments are eroded by stealth and drainage channels tend to

be under-dimensioned. Local public action, so-called, 'public cuts' of unpopular embankments by 'anonymous demolition crews', prohibited under the Embankment & Drainage Act of 1952, thus remained illegal (Hanchett, 1997). A 'public cut' of course means that the drained water is offloaded on the next area, and the suspicion of a cut can lead to intense conflict. During the FAP-20 episode, public cuts were made, some of which were stopped by the authorities.

5.5   CHALLENGING   AND   POLITICISING   FAP-20:   NAMING,BLAMING, REFRAMING

5.5.1   UNCERTAINTY, POLITICISATION AND BLAME

To properly address the flood, it makes sense to determine what causes it. But as Thompson and Warburton (1985) have shown, there is no consensus between analysts on what causes floods upstream in the Himalayas, and likewise there is no undisputed narrative on downstream floods in Bangladesh. Depending on whether you believe the World Bank, the government, NGOs or an indigenous movement, you get highly 'contradictory certainties' about what caused the problem. All these actors and their blame stories can have 'felicity' with the decision-making audience, and should therefore be taken seriously in the analysis. These uncertainties promote storylines that do bring apparent certainty in the face of uncertainty (van Eeten, 1997).

A closer look at 'blame stories' in Bangladesh, such as in Table 5.5 below, shows a contrast between floods as an 'Act of Man', which blames specific actors for the floods, and floods seen as an 'Act of Allah' (Schmuck, 2000)[201]. *Through the events He is showing His will and power against which they cannot and should not do anything'* (Schmuck 2000: 85). The fatalist approach to cause and cure is often attributed to the whole of Bangladesh, to the frustration of aid agencies, as it hampers flood pro-action and preparedness: 'It [natural calamity] has been a part of our life as it comes every year in one form or another', Prime Minister Khaleda Zia told the press in 1991; 'No one has control over natural calamities' (quoted in Dove, 1998: 51, 53). Wood (1999) on the other hand claims that the government blamed tree felling in Nepal and sea level rise, presumably on a different occasion. Whichever the blame story, it exposed the government to NGO criticism that the government was avoiding responsibility for its people's flood vulnerability. The attribution of causality also conjures up the question who should take care of the problem. Given its dependent self-image, the Bangladeshi government tends to leave responsibility to outsiders. This reflects the *internal* mudslinging between the prime movers in the security debate, 'engineers' and 'sociologists', which was foregrounded in the politicisation of FAP-20. This at times made it difficult to make out what was 'really' going on.

TABLE 5.5   Risk, Responsibility and Blame: Who/what caused the floods? - after Dove (1998)

According to:	External cause	Domestic cause
Government	- India's Farakka Dam, Upstream tree felling - Act of Allah	People's irresponsible behaviour (settling in floodplains)
NGOs	- Upstream tree felling; - Western carbon emission causing climate change	Government not taking responsibility

Jesse Manuta (n.d.) identifies two flood 'master' problem frames depicting flood as a natural hazard or a development issue. One can visualise a continuum running from fatalist ('it can't be helped') to a control mindset ('we can handle everything'). Somewhere near the control side, the *developmentalist* frame puts great trust in Man to overcome natural hazards, if only the stakeholders

are on board (people's participation) and sectoral plans are integrated (Manuta, n.d.). Underlying these problem frames are moves for securitisation, seeking to legitimise extraordinary intervention measures, but are not invulnerable to counter-securitisations. As we shall see below, we will need to expand Mantua's framework by a third frame and securitised referent: *human rights* (Table 5.6 below).

TABLE 5.6   *Expanded set of flood problem frames, after Manuta (n.d.)*

Problem frame	Solution frame	Proposed by	Participation
Natural hazard problem ('Act of God')	Technical fix	French[202]	Minimal public involvement
Development issue ('Act of Man')	Integrative approach, linking sectoral plans	Americans, Dutch	Broad consultation of the public
Human rights issue (Project as problem)	No project; build on people's resilience	NGOs, some external consultants	Popular resistance to flood project

The Flood Action Plan programme was triggered by a dramatic event that had strong humanitarian appeal: images of death, suffering and destitution gave the G7 a popular platform to start from. The military rule under which the project began allowing the Flood Action Plan to be rushed through with little opposition or even communication with stakeholders - a 'securitised mode of decision-making'.

However, different discursive coalitions have sought to open up the dominant problem frame, away from physical security, and the governance set-up away from top-down intervention. In developing a counter-hegemonic alliance, the anti-FAP movement developed a counter-frame by 'aligning' different discursive frames into a 'discursive alliance' (Hajer, 1995).

I will categorise these moves in terms of securitising move. The approach to securitisation pursued here is highly interpretative, though, as the 'security' aspect was often only implicit, rather than explicit, while its usage in the donor literature was rather loose[203].

As noted, the FAP could ride on a platform of national interest and international moral outrage at the loss of life and economic assets in the 1987/1988 disaster. Intriguingly, both FPCO and NGOs have since downplayed the number of victims in the 1988 floods, originally one of the major 'selling points' for the FAP.[204] Already at the inception of FAP the rationale had shifted from physical protection to the stabilisation of *food* production to feed a booming population (Hanchett, 1997: 280). The dominance of this irrigation aspect however was not well communicated, NGOs claimed. Instead there was question of a 'water management project' (Houscht, n.d.). In 1993, Tangail protesters still demanded physical security, calling for flood control priorities be changed 'from producing rice to saving lives' (quoted in BCAS, 1994) but the national water authority took the view that given the relatively sheltered position of Tangail vis-à-vis the Jamuna, there was no concrete danger to Tangail lives. The anti-FAP NGO platform did not support the view either. 'Water is not our enemy but it is our resource', as Khushi Kabir, its chairwoman, summarised this stance in 1995.[205]

Only for urban and industrial areas complete *protection* - which was thought to be 'uncontroversial' (IOV, 1993) - would still be feasible.[206] While the Dutch kept invoking the ´fight against the water´ even in 2000 (EGIS, 2000) the project went ahead 'because of the greater national interest to Bangladesh' (*Daily Star,* 18-3-94). FAP-20 intended to provide *a secure environment for more risk-taking in food production* to help realise food security as well as economic advancement, rather than the need to save local lives or livelihoods. Despite highly fertile soils, Bangladesh has one of the lowest per hectare rice yields in the world (Boyce, 1990). Any pretence of rural flood protection for Tangail was abandoned in favour of *controlled monsoon flooding* for agriculture.

But the famines of 1943 and 1974 (when 30,000 people died) are clear in the minds of policy-makers, such that food security is a key priority in each five-year plan. Not just food security but *food sovereignty* is very central to Bangladeshi policymaking. While Myers (1995) claims it is

'generally thought' that the country will become ever less able to feed itself, Bangladesh has over 90% self-sufficiency in food.

Agricultural development based on Green Revolution technologies, notably High Yielding Varieties (HYV) is a cornerstone of five-year plans. The FAP aimed to increase the number of harvests per year, per hectare yield, the diversity of crops. Especially FAP-20 hinges on 'foodgrain security as the route for food and other kinds of security' (UNDP, 1995). *Environmental* concerns were raised from the start, but only become a core concern after preliminary results of FAP studies also showed adverse affects (Shamunnay, 1996). To established engineers like K Siddiqi (FPCO), the environment is synonymous to the resource base, so that he could not see why people would worry over the environment while they were going without food (BCAS, 1995).

At the turn of the 1990s, *poverty reduction* became the buzzword in programmes run by Western donor agencies and Bangladesh was a textbook example. Nearly half of Bangladesh's 133 million people live below the poverty line. It is the only country categorized as least developed to a population over 75 million (Islam, 2004).

Agricultural development, it was noted, did not necessarily alleviate poverty and might increase social inequality. Dutch Inspection agency prided itself therefore on the fact that through FAP-20 the Netherlands had adjusted FAP policy towards a poverty alleviation orientation (IOV, 1993).

The dynamic driving force in Bangladesh is a booming *population* (despite a successful birth control programme) (Caldwell, Khuda *et al*., 1999). Poverty alleviation, according to the Association of Bangladeshi Engineers, necessitates large-scale land reclamation and dam building (Association of Bangladeshi Engineers, 1995). Once the farmers increase their wealth, other sectors of society will start to benefit too.

The Bangladeshi leadership echoed the view that development was a way out of poverty: '(T)he recurrent problem of flooding inhibits [Bangladesh's] development potential and stands in the way of the economy taking off in real terms' (PM secretary letter to French govt, 1994, cited in PANOS/BCAS, 1994). But not only flooding was seen as a brake on development, so was resistance against FAP - Ross Wallace, the World Bank representative co-ordinating FAP from 1990, reportedly went out of his way to discredit the opposition as 'anti-development' and 'criminal' (Nicolassen, 1993).

How was the developmentalist discourse countered? This is the concern of the Section hereafter.

5.5.2   RESISTANCE TO DEVELOPMENTALISM

Eleven days prior to the London donor conference starting FAP in 1989, the well-respected Bangladesh Agricultural Research Centre (BARC) issued a report (BARC, 1989) warning that introducing Green-Revolution innovations such aqs High-Yielding Varieties (HYVs) of rice require more fertiliser, which, if indiscriminately applied, deprives soil of organic matter Since HYV seeds and inputs will need to be bought again and again, this can open a credit trap to cover the cost of seeds, fertiliser and pesticides. This can precipitate the 'debilitation of the local food security system' and the loss of *livelihood* resilience to withstand food crises (also noted by Wood 1999 and others). The 'sanctioned discourse' of agricultural development however brooked no opposition: in response, key members of the discussion forum who drafted the BARC policy brief were 'strategically removed from office' *(FAP Monitor* 1(2), August 1995; Chadwick & Datta, n.d.).

Funded by the Norwegian government, which had decided to stay outside FAP, Bangladeshi sociologist Shapan Adnan seconded BARC's political economy perspective, revealing that flood victims of 1987 and 1988 were mainly the landless poor who lacked clean drinking water and food, while the rich hardly suffered because of the bumper crops following the floods (Shapan

Adnan 1991; also Clayton-Dalal *et al.,* 1992). The Flood Action Plan only got under way because even the richer areas in Dhaka were affected.

Critical researchers contracted to work on various FAP studies sought to change the programme's problem definition. The social development and gender consultants Suzanne Hanchett and Mahbuba Nasreen, for example, claimed that the problem is not flood but economics (Hanchett and Nasreen, 1992). Concentrating on improving monsoon yield benefited landowners at the expense of sharecroppers and the landless fishers, widening socio-economic disparities.[207]

The promised 'secure environment' for Tangail in practice only meant security for landed farmers protected by the embankments and, if need be, musclemen. FAP-20 was feared to redistribute security between economic sectors and those providing for their livelihood inside and outside the system,[208] reinforced by inadequate compensation measures for harm to livelihoods.

> 'Flood control and irrigation create new land and enhance the value of existing land. (…) The value of land changes when it is protected from early flooding, or drained from water-logging, by embankments and canals – but only those landholders with land in the 'command' of such constructions will benefit' (Wood, 1994).

Such concerns begged the question: Why support the rice farmers anyway? Rice can be imported cheaply from the world market, and much more easily than fish (Faaland *et al.,* 1995) - while fish is the only accessible source of food to the poorest. Bangladeshi governments have interpreted food security as autarky from the country's early beginnings (Faisal and Parveen, 2004), but it can also be framed otherwise: as developing an export base that brings in enough revenue to import food requirements (virtual water).

FAP's 'dry' development model encouraged the enclosure of *beels*, squeezing the area available to fishermen. It created openings for the capture of *khas* (holy land, commons) land by the violent enclosure of common-pool resources. The sluice-gate operators are not paid and the SC committees remain unfunded. Thus, despite the intended participatory mechanism, those with money to pay the operator, or alternatively to pay musclemen (*mastans*) to force a decision, are effectively in control. Physical insecurity due to police beatings as well as intimidation from hired hard men were depressingly regular (e.g. Ali *et al.,* 1998). A FAP-20 team leader also reports physical attacks from local contractors (interview, Team Leader).

Three out of every four Bangladeshis (predominantly women) at the time was involved in (part-time) fishing (Faaland *et al.,* 1995). Mitigating measures in the project, notably cultured fishing, benefited landowners but not the landless, who often are fishermen. Fish production is the main livelihood of the Hindu minority, which makes up 10-11% of the population of Bangladesh. Hindus have been traditionally barred from owning land and therefore consigned to being fishers and eating fish for their basic protein intake. Their economic and food security therefore is crucially linked to the mode of livelihood, with few alternative livelihood opportunities. Cultured fisheries also require significant investment, again disadvantaging the poor.

The political economy makes livelihoods and resource conservation issues are impossible to reconcile. A Bangladeshi project consultant noted a national trend for draining fish ponds until the last fingerling:

> 'What happened in June/July: we put in 2 fish passes. After 15 July all the gates of the periphery were open. But what happened: all fishermen came and put their net, they fished up everything. In '96 I put special police for them not to catch fish, to stop the catch from July – September. But we have no jurisdiction beyond my area, no jurisdiction outside the area. The local *parishad* should take authority, it must take care of that. Otherwise there will be no sustainability'. (interview, Bangladesh project manager 2000).

The most vulnerable group, however, are the millions living on the unstable islands near the FAP-20 area and elsewhere on the rivers. In Bangladesh, space is still at a premium, as evidenced

most graphically by people living on these islands. Each year, the Brahmaputra alone makes 30,000 people homeless (Schmuck, 2000).

Those outside the project area indeed regarded the project with suspicion. According to local authorities, the lure of flood protection attracted 30,000 into the area within a few years, and land prices went up tenfold (KfW, 2004). But due to the project, those who remained outside were worse off than before (Euroconsult *et al.,* 1995) and there were press reports of 'violent clashes between pro- and anti-FAP people in the locality' (*Independent,* 1995), Conflicts between insiders and outsiders to the project area came to a head after the Main Regulator was installed at Jugini. The BWDB-employed operator of the Main Regulator structure told me he often had to run for his life to avoid being beaten up by musclemen (interview, 2000)[209].

Those displaced by Jamuna riverbank erosion, already among the poorest of the poor, had to move to highly 'insecure, unprotected areas' (IOV, 1993) known as *char* lands (*'wadden'*). JCDP, a Bhuapur NGO representing *char* dwellers had tried to file a case against FAP as a whole before the 2nd International Water Tribunal in Amsterdam in 1992, emboldened by the attention their protest against the Jamana Bridge had attracted[210].

JCDP argued that the food security paradigm underlying FAP-20 (self-sufficiency in monsoon foodgrain) was an outdated one for two reasons:

1)   the biggest production advances are made not in monsoon but winter season *(boro* crops) and

2)   'food' only read as 'rice' neglects fish as a source of protein in people's basic food intake.

Bangladeshi NGOs played on their concerns by phrasing their case in 'conservationist' livelihoods discourse, championing the case of the fishermen. The title of the Bangladesh Centre for Advanced Studies (BCAS)' booklet on FAP, 'Rivers of Life' (1995), sums it up. In response to the criticisms, a new contingent of consultants was commissioned to take a closer look at biodiversity and fisheries and concluded that FAP had done little actual harm that has not been done elsewhere (e.g. De Graaf, 1999).

A international NGO–led discursive counter-alliance presented their case as a *human rights* and survival issue. Human rights derive from a securitisation of an existential threat, the transgression of a boundary (Pia and Diez, 2007). Articulation of a human right where none had been established establishes the existence of a conflict, of which armed confrontation is the escalated stage. Section 5.5.4 discusses how this frame played out in streets, lobbies and courts.

5.5.3   STAGING PROTEST: POLITICISATION OF FAP AND FAP-20

'The Dutch are funny people. They give money to one group of people, then they give money to another to oppose what the first group is doing.' (Prof. Ainun Nishat, EGIS/GoB conference talk committing on Dutch funding for critical Dutch NGO BothEnds, 22 November 2000).

Initially, FAP was not a major issue with the major NGOs in Bangladesh itself (see also: Adnan, 1992, BCAS, 1995) and the NGOs working in the area did not coordinate much among themselves (IOV, 1993)[211]. The first anti-FAP protests were started by international NGOs in 1991. Only in 1992, the Bangladeshi NGO Proshika contributed a paper to the Rio environmental summit in 1992 and in 1993 an international flood coalition of European, American and Bangladeshi NGOs formed in Strasbourg (Stiles, 2002).

We have seen that Tangail as a project site was not selected by donors for its typicality of Bangladesh but rather its convenience. Likewise, interviewees note that NGOs perhaps did not single the area out for their protests wholly for its own merits but as a symbol that happened to be within easy reach from Dhaka. This made it feasible for Dhaka-based NGOs like Nijera Kori, a non-governmental organisation very much organised around the activist Khushi Kabir, to mobilise and support local protest.

Thus in 1992-93, anti-FAP processions and rallies ensued in Tangail and Dhaka, which found surprising resonance in the national, but even more the international press and donor community. The 10,000 protesters mobilised were mainly women. Women's groups such as Gram Unnayan Parishad (GUP), took a major role because of their vulnerability to land take, intimidation and unfair compensation (*Daily Star,* 1995, see also Kvaløy, 1994). Female-headed households are 35-40% of all households and almost 25% of all agricultural households (Hamid cited in Hanchett, 1997, Akhter and Akhter, 1997). The Tangail protesters successfully reframed the security issue from a *national* economic development issue into a *local* human rights issue resonated in Europe and North America.[212]

The women's groups presented handwritten petitions in several villages, and played a pre-eminent role in street protests in Tangail and Dhaka. It cannot be ruled out that NGOs stage-managed these demonstrations by bussing Tangail citizens to Dhaka (Kvaløy, 1994: 39) – many of them being illiterate and clients to NGO services.[213] While the spontaneity of anti-FAP demonstrations can thus be debated, the demos did get the media attention sought. As Hajer (2005) notes, NGOs are well versed in the art of dramaturgy ('staging'). The manifestations were filmed and screened the world over. Through their excellent connections with international NGOs and donors, the Bangladeshi groups thus nourished an already effective international lobby that just grew and grew, casting doubts in the minds of the FAP consortium over the wisdom of investing in FAP. Banking on their existing extensive international network, the Bangladeshi NGOs developed a supporting alliance of NGOs and (Green) politicians in the West, which helped leverage interest and profile in Europe and the US. The GoB did not improve things by threatening measures against involved NGOs and to invoke the anti-Terrorism act in Tangail in 1993.

In the Netherlands, Dutch Parliamentarians[214] had already asked questions about people's participation to the Minister in 1991. A corner was turned when in 1992, the Bangladesh People's Solidarity Centre (BPSC) sent a protest letter to the Dutch government. BPSC, ICCO, Both Ends and other developmental NGO coalesced and called on parliament to terminate Government of the Netherlands support to FAP, which led to questions raised by liberal-of-the-right (VVD) Members of Parliament.

In Germany, AIO, a platform centring around anthropologist-activist Hanna Schmuck, lobbied the German government. An anti FAP-coalition formed in the European Parliament and a high-level lobby was created in the United States. NGOs helped the European Greens organise a conference in Strasbourg on 27 and 28 May 1993 (interestingly, this is not mentioned in the project's Final Report's chronology) which the heavily criticised World Bank representative left in anger. In North America, the University of Texas teamed up with the International Rivers Network fuelling a high-power lobby calling for the withdrawal of US support (Mitchell, 1998).

In addition to social issues, FAP-20 was presented as an environmental disaster in the making. In itself, FAP-20 was not all that different from earlier (polder) projects carried out in Bangladesh for many years with a view to alleviating the population pressure and creating productive land. In the 1970s and 1980s, land reclamation in the form of poldering mushroomed. However, Bangladesh had failed to emulate Dutch successes, in part for lack of funds to resources to pay for powerful water pumps to discharge excess water. As a result, each polder (especially the low-lying areas within them) inevitably had to contend with drainage problems: both the Meghna-Dhonagoda Irrigation Project (MDIP), whose dikes breached in 1987 and 1988, destroying crops and infrastructure, and the Dhaka-Narayanganj-Demra (DND) project which saw inlets and outlets silting up and fields clogged up. Most famously Beel Dakatia, which suffered so much that the soil became completely infertile in the 1980s turning the area into a dust bowl, could be held up to the donors presenting an similar 'ecological disaster' scenario for FAP-20[215] with potential for 'desertification' (banglapedia.com, also Atiur Rahman, 1989).

The successful international politicisation of FAP (rather than an actual 'disaster' like Beel Dakatia or the Brahmaputra Right Embankment or Food for Work projects) must have been a surprise to all involved, not least the NGO community.

Spreading horror scenarios for FAP-20 with great media savvy, the activists fed donor worries. Critical reports were now also issued by donors, who were already becoming increasingly jittery about whether they were 'doing the right thing' (Soussan, 1999). The successful NGO lobby against the Sarwar Sarovar (Narmada) dam in 1991 and the half-successful protest on behalf of the *char* people affected by the Jamuna Multi Purpose Bridge and FAP 3.1[216] had opened a window of opportunity to lobby a nervous World Bank, and the NGOs' obstructive power grew accordingly. Post-Narmada, donors became very circumspect about supporting an unpopular project. NGOs benefited from the willingness of some donors (Asian Development Bank, Netherlands) to work with them, giving them a niche in the project, while they could at the same time side vociferously against the World Bank, who refused to engage with them (Stiles, 2002) [217]. World Bank Secretary-General Wolfensohn reportedly said he did not want 'another Narmada'. This made FAP-20 a soft target for protesters.

5.5.4   SEE YOU IN COURT

In addition to street rallies and political lobbying, the FAP--20 project was fought in court on a human rights platform, with a smaller role for cultural heritage.[218]

Mohiuddin Farooque, the late founder and Secretary General of the Bangladesh Environmental Lawyers Association BELA, a nationally active NGO, predicted massive unemployment, displacement of people, damage to the soil and fish habitat and create drainage problems (*Daily Star* Editorial, 27-4-1994). Questions were raised in Dutch Parliament about this lawsuit. Jan Pronk, the Minister of Overseas Development Assistance responded that it can take considerable time for a case to come through - lawsuits are dealt with in chronological order, and in September 1994, the time the case was filed, the Supreme Court was still dealing with 1988 cases (Rolloos, 1995).

The Bangladesh Environmental Lawyers Association however persisted and succeeded in changing the law to allow a group to litigate *pro bono*, i.e. on behalf of the community. The Appeals court indeed allowed him to fight the scheme on behalf of Tangail, despite not being personally affected. In this capacity he tried to stop the FAP-20 on the grounds of unconstitutionality on behalf of a Tangail citizen. Notably, in the end the Writ Bench of the High Court Division of the Supreme Court[219] ordered the government to prove that FAP-20 was in the people's interest - which the government declined to do. Despite declaring the project illegal, though, the court decided FAP-20 was too far down the line to consider stopping it.

BELA then litigated on behalf of claimants who felt wronged in the land acquisition process and seriously under-compensated for the loss of their land, taken for flood defence structures. It is an understatement to say that the system for compensation is not well developed. Only for externally funded projects are there compensation rules, but they tend to pertain to farmers only. Houscht (n.d.) notes that foreknowledge enabled landowners to build large houses on sites they knew were going to be needed for the project, expecting to make a killing in a compensation claim. Others however are not so lucky. In more recent projects, efforts are made to compensate fishermen, but the landless still get a raw deal. If paid out at all, compensation money is siphoned off by local elites. The Deputy Commissioner, the acting district head, tends to dole out much less money than claimed, and claimants need to make repeated trips to even obtain that money (Wood, 1999).[220]

5.6   FAP PART II: NEW (DE)SELECTION OF ALTERNATIVES

We have seen that opponent moves for closure managed to reframe the problem definition, but not stop the project, which was about to move into its second phase in 1995. A series of natural events (5.6.1 and 5.6.4) and political developments (5.6.2 and 5.6.3) events triggered yet more changes in the project's make-up.

5.6.1   ACCIDENTAL CLOSURE?

But by mid-1995 FAP-20 project was suddenly hanging by a thread due to a dramatic physical event. The construction of the large Jamuna Multipurpose Bridge necessitated the closure in October 1994 of nearby river inlets of the Old Dhaleswari which feeds the rivers Pungli and Dhaleswari which in turn feed the upper areas of the Tangail (FAP 20 project) area, spanning 2560km^2. Hydraulic modelling revealed that this would reduce the level of the Dhaleswari river to fall by 40-50cm and the Pungli by 100-110 cm (Hydraulic Modelling for Dhaleswari Mitigation Study – IMWBD, 1995). This would reduce flood risk, but also the benefits of irrigation and soil flushing in the area.

The Jamuna Multi-Purpose Bridge is a project of great symbolic, economic and political importance to Bangladesh - the bridge provides a shortcut for traffic across the Jamuna, as well as making Bangladesh an attractive transport link between two parts of India. The Bridge was an important bargaining chip for Bangladesh in sealing an agreement with India over the Ganges: in December 1996, Bangladesh obtained a hard-won bilateral fifty-fifty agreement with India over the river Ganges.[221] In a separate treaty, Bangladesh admitted Indian transport across its territory, which cuts the route for east-west transport for Indian businesses to the state Assam[222]. Interviewees (and also: Waterbury, 1997) suggest the two treaties are closely linked.

But one branch of the Water Ministry apparently did not know what the other was planning: there had been no communications between the Roads Ministry, in charge of the Bridge, and BWDB or the FAP team. Some water was still coming from two minor spill channels, which due to increased hydraulic head [*druk*] developed a steeper gradient and had started to scour, and from the New Dhaleswari intake. But for all practical purposes, the closure would render FAP-20 practically meaningless.

On the initiative of FAP-20, the Ministry of Water Resources called an inter-ministerial committee representing all parties concerned. Between March and June '95 the committee drafted a report proposing a new intake channel, 100m in width, to be constructed in the next two years.

But on 8 July 1995, as a FAP-20 workshop report has it (Euroconsult *et al.,* 1995: 64), 'Nature intervened' by way of a 'spontaneous breakthrough' of a stretch of river bank south of the closure, which found its way into the (blocked, minor) First Spill channel. The water broke through from the Jamuna into the Dhaleswari taking several hundreds of houses with it in the process. Conspiracy theories abounded. [223]

Meanwhile, it was crunch (go - no go) time for FAP-20 at the decision-making level. By 1994 most FAP studies had been completed or aborted, only pilots like FAP 20 were due to continue. FPCO's evaluation of FAP in October 1994[224] had culminated in an extensive wish list for 65 projects to be implemented in the next 10 years. A full fifth of the budget for this programme would be taken up by a Bangladeshi Farakka Dam on the Ganges – although Biswas and Uitto (2001) claim that it makes no sense to build a dam there, since Bangladesh is a delta. Bangladesh would indeed favour dam construction upstream in Nepal, but this would require a multilateral treaty, which India is not keen on.

The Association of Bangladeshi Engineers claimed with a textbook 'TINA' [There is no alternative] – type move for closure:

> '(d)ifferent study reports'(unnamed in the document, JW) 'indicate that Bangladesh to feed her teeming millions in the future and meet other sectoral water needs has no other alternative but to go for barrages in the major rivers' (Association of Bangladeshi Engineers, 1995)

But most plans were shot down by a World Bank 'advisory memorandum' to FPCO. A revised version produced by FPCO and the Panel of Experts known as the 'Water Strategy Paper' which appeared six months later, in March 1995, avoided any mention of the FAP and turned out to be very different and much more modest five-year programme (Huq/Rahman, 1995). The Flood Action Plan was renamed the Bangladesh Water and Flood management Strategy (GoB, 1995). Instead of new hydraulic structures, the paper aimed at the development at a national water plan, institutional strengthening and integrated water management, which now meant round-the-year water management.

To the great disappointment of the Association, the Water Strategy paper 'tactfully denies the possibility of construction of barrage [*sic*] on the major rivers of the country' (Association of Bangladeshi Engineers, 1995). This, again was an exaggeration: that document and the FAP-II budget still provided for a Bangladeshi Farakka Dam on the Ganges, to respond to the lost influx due to the Indian Farakka Dam.[225] This dam however has not been built so far.

A new donor conference held in December 1995 did not lead to concrete pledges, but recommended better stakeholder involvement in any water-management investment and activities, more sustainability and a national water management plan.

5.6.2   BWDB HEGEMONY UNDER FIRE

When the Flood Action Plan started, the idea of integrated water management was still way off the map. Bangladesh experiences river floods and rainwater floods inland, and tidal and storm-surge floods in the coastal zone. The Flood Action Plan only tackles river floods. Bangladesh had diverted all its resources on flood protection in flood-prone areas rather than treating floods as part of an annual cycle of flood and drought that affects the whole country.[226] While there was a water planning institute that could have taken a comprehensive view, WARPO, the government of Bangladesh and its donors chose to superimpose a Flood Protection Coordination Organisation (FPCO) to co-ordinate, supervise and monitor the FAP works. This consisted of experts seconded from the Ministry of Irrigation, Water Development and Flood Control, More than BWDB, the FPCO was exposed to external influences (pressures), causing the IOV report to exult that FAP was 'unprecedented' in the level of co-operation between donors and recipients (IOV, 1993). A *Panel* of local and international *experts*, mainly funded by the UNDP, was formed to lend advice. It was expanded in 1992 to incorporate a wider range of disciplines.

However, the BWDB did not easily adapt to the new winds blowing in the field of water management, planning and practice. It traded on its earlier successes in coastal management and has taken a long time to learn to live with criticism and adapt. Security, to the Board, lies in control, hierarchy and technical indicators, rather than initiative; making mistakes is punished, in other words: the culture is risk-averse, which is likely to stifle innovation. One recently retired BWDB engineer told me that the BDWB has a centralised, rigid rotation system with little institutional memory. Normally, no evaluation takes place of completed projects, as BWDB views itself as too short of resources for this (interview, December 2000). Indeed the Dutch ODA Inspectorate (IOV) report of 1993 had tersely noted, "FPCO and BWDB are short on learning capacity"[227]. However, despite complaints on the part of senior and retired BWDB engineers I interviewed, who felt that after a golden age up until about 1975, quality has gone down, *esprit de corps* is very high.

The 1995 donor conference recommended structural reform of the water sector. The World Bank plan forced the BWDB to shed several thousands of its staff, and restructure to incorporate more disciplines. In 1995 FPCO merged with WARPO, the water resources planning organisation originally set up to prepare the national water management strategy. In 2006 BDWB were 'twinned' with the Dutch public works department which itself had gone through numerous downscaling reforms.

'They [BWDB] know if they don't change they are going to die' (Bangladeshi consultant interview, 2000).

On the basis of new *Guidelines for participation* (version 2000), it looks like the BWDB now hopes to 'solve' its burden by trying to hand more projects over to a still weak local government. This gives momentum to the pendulum swing towards smaller, decentralised projects, boosting the role of the local government ministry, LGED. Upgraded from the Local Government Engineering Bureau in 1992, LGED's strength lies in small local projects, and it now increasingly competes with BWDB for funding.

5.6.3   CRITICAL DONORS

The changed donor climate had important consequences for FAP-20. Both donors sent Ministerial Missions (1995, 1996, 1997) and at various instances questioned the wisdom of pushing ahead. Questions were again raised in the Dutch House of Commons about the lack of participatory opportunities. The liberal-conservative party pointed at the minority opinion of one member of the ODA inspectorate's report (IOV) inspection team of 1993 who disagreed with the report's conclusion that the project should go ahead.

The donors were annoyed enough with the controversy over participation to dramatically swap consultancies after the Mid-term report. Formally, the reasons for Euroconsult's replacement by Haskoning are 'confidential' – the report intimates they are not being flexible enough and being too costly (Schulte Nordholt *et al.,* 1995). However, while those interviewees who brought up their experiences with the Dutch consultant were less than enthusiastic about Euroconsult's performance, a measure of scapegoating and personal politics is strongly implied (interview Dutch consultant, 2000). It is also noted the mid-term evaluation report was not officially ratified by the donors (CPP Final report, 2000) and it is not agreed by the interviewees that the new consultant did much better than the former consultancy.

Presumably in response to all the turmoil the project management radically changed its stance locally by 1995. In December 1994, an Information Centre was opened at Tangail. It made impressive efforts to inform the public and listen to its demands. Kamal Siddiqi and his team leaders frequently visited the area and held meetings to motivate people and listen to their views. The leadership also put in several accompanying measures, such as roads, which had not been part of the original plan and a structure of eight different gates in the regulator to regulate fish access. The project even issued an anthology of press reports on FAP called *The Press Speaks* (FPCO, September 1995) including some coverage of the BELA legal notice to stop FAP-20.

In 1995 FAP-20 still ranked as a priority project (FPCO, 1995). But the excitement with the donors had clearly waned as the project reached ever more troubled waters. After the Germans threatened to stop funding after the 1996 mission, yet another overhaul was instigated based on a reformulation mission (Datta *et al.,* 1997, Knaub, 1996). This new system, worked out in 1997, created room for fishermen, landless and women, however still did not take account existing informal local problem-solving, binding arbitration councils consisting of village elders (*salish*), preferring to superimpose a new system instead. The guidelines were later characterised as 'confusing' by the Dutch ODA Minister, Jan Pronk (Final Report, 2000).

5.6.4 THE 1998 FLOOD AND THE PROJECT AFTERMATH

Just when the momentum for FAP was clearly lost, Bangladesh experienced the 'flood of the century' in 1998. Like in 1988, over 2000 people died, millions lost their homes. Despite its losses, flood response counts as a success because there was no famine, vindicating Sen.'s endowment theory. The flood also was a major test for FAP-20.

While the Embankment Management groups, established to maintain the structures for the long run, had been less than dynamic – too much trouble for too little gain – but as the project area's residents could see the water rising with their naked eye, they put in joint efforts to reinforce and raise the embankments. While outside the project area, the majority of the country found themselves 8m under water, FAP-20 remained a dry spot. In fact people interviewed by Chadwick *et al.* (2001) in Jugini, inside the project area complained that the flow was too low, so that insufficient floodwater reached their paddy fields and (agricultural) pollution was insufficiently diluted. The area received an inflow from people from the Jamuna left bank, which was fast eroding, using their social network and squatting on *khas* (government) land.

Some participatory principles took hold in national policy. In the run-up to the NWMP, a large countrywide People's Participation project was carried out to inventory what kind of water problems people identified and what types of solutions they preferred – if, going by BIDS information ((see below), far from flawlessly. Thus lay knowledge now plays a role alongside expert knowledge. 'You can discuss [i.e. debate, JW] the methodology but the *concept* is accepted' (interview, Bangladesh consultant).

In the end, UNDP's (1995) prediction that the 'apparent attempt to approve FAP and secure funding for some of its major components before (…) public debate, will cost Bangladesh dearly' was well observed, but one wonders if there is no question of post-rationalisation. Would the donors and UNDP have been so critical if NGOs had been less successful at mobilising the press and public opinion against FAP?

The goals evolved and goalposts moved quite significantly over time. The water management philosophy changed dramatically in the 11 short years between 1989 and 2000. The protest coalition's frame was successful in that the water paradigm shifted away from FCD/I (Flood Control, Drainage and Irrigation) and the importance of fisheries is now accepted in the National Water Management Plan of 2000. Participatory ideas were enshrined in that Plan, new actors found a place within the regime, while others were restructured.

In 1995 it was admitted that one of the key objectives was already outdated - rather than quick disposal of monsoon water, retention for the dry season now became key. After the reformulation mission, the main criterion became whether compartmentalisation is a good investment for contemporary Bangladesh. This made the issue much more *economic* in nature, a benchmark it signally failed (CPP Final Report, 2000).

The *cost-benefit* analysis of the project itself elicited much scorn in my interviewees. The internal rate of return of a project is supposed to be 12%. However, as a Bangladeshi consultant told me in 2000, the consultant who does not 'get' that figure will not get the job, and the only way of protesting an approach you dislike is to 'get' exactly 12.0%. 'They cook up a certain benefit, increased production. They don't know if it brings those benefits' (interview Bangladeshi consultant). A Bangladeshi NGO representative calls it 'eyewash' (Bangla NGO interview, 2000). No matter the cooking, for FAP-20 the Internal Rate of Return turned out dismal. The final project evaluation report (2000) somehow comes up with 3.1%, which it judges to be 'hardly attractive'. After some re-accounting in which some project cost is reassigned to projects other than FAP-20 (as was done for the Jamuna Bridge), the IRR yields 7.3%, which is still too low for the discounting benchmark. The Final report pointedly asks whether 12% is a reasonable discount rate standard for any water project and notes that the intangible value, delivery from 'fear of flooding', would itself justify many projects in developed countries. Yet it seems to undercut this point by noting the standard of protection is a rather modest 1: 20 (CPP Final

Report, 2000: main report). But as FAP-20 team leader commented (interview, 2007) EUR10 million for 10,000ha may be a lot, but the Economic Internal Rate of Return (EIRR) will never be impressive for a *pilot* project – had the concept been repeated, economies of scale might have been realised.

In 2000 an internal WARPO review decided FAP-20 was neither replicable nor sustainable (Latif, pers. comm., 2000). Given the experiences with FAP, no large river schemes are likely to be funded externally any time soon, perhaps unless an even bigger disaster strikes.

When I visited the project site in late 2000, any sign of donor presence had gone, the Tangail project information office was nearly abandoned, and any remaining business was taken care of by a Diploma engineer[228] and a local consultant who would be leaving after 4 months. Despite having been on the case for 18 months, the engineer did not seem to know anything about the project, and is looking forward to his retirement in 6 months (int. consultant Tangail). Some funds were set aside for Operation and Maintenance, but nothing much was done with it (interview Team Leader). 'Land grabbing' on the river bank reportedly has further encroached and polluted the river, especially in Tangail Town (Shakil, 2006). This was confirmed by two Dutch thesis students staying in Tangail for four months in 2007, who reported that many of the 65 structures put in place (15 – 20 were never built) were in bad shape, with channels being filled in to build a house on. The committees had all disintegrated, apart from one committee near the Regulator, members of which freely admitted their committee was only for show when donors come to visit. Their interviews supported the view that the need to consult and work with local people has taken root in BWDB, in part due to the FAP experiences.

5.7   COMPARTMENTALISATION OF KNOWLEDGE: FAP AS A PROGRAMME OF STUDIES

The final received wisdom is to present FAP as to nothing more than a programme of studies:
The objective of the Compartmentalisation Pilot Project (FAP 20) was to gather experience with the planning, construction and operation of compartments in the floodplain of the Jamuna River while taking the local water management, institutional and socio-economic conditions into account (KfW, 2004).

Since FAP has come to be seen as a research programme rather than an action programme instead, it makes sense to look into it as such in terms of knowledge generation and dissemination within the decision-making regime.[229] Those who saw FAP as a *study-based* exercise to find ways to minimise flood damages are not too unhappy with the outcomes. In the press (e.g. the *Daily Star* of 19 July 1995) and in interviews with Bangladesh engineers, project leaders professed satisfaction that the project showed compartmentalisation could indeed be done. But as we saw earlier, an obsession with deadlines led to rushed implementation before proper needs assessment, modelling and data-gathering had been carried out, so that the cart was put before the horse[230].

Apart from compartmentalisation, other approaches such as flood proofing were indeed studied in the Flood Action Plan as a whole and, as we saw, there was increasing room for a critical researcher approach as the project progressed, so that local knowledge and practices (Chadwick *et al.*, 1998) become more widely known. So if, as Ericksen *et al.* (n.d.), claim:

'(t)he spirit of FAP is ...to examine the advantages and disadvantages of a range of alternatives for dealing with the abnormal flood problem and to combine the best options for various locations across the country' (my emphasis, J.W.),

we can conclude that the closure arrived at in the 1989 London conference was indeed not absolute.

The research debunked some of the stronger claims made by opponents. NGOs claimed in front of the Dutch and German Development Ministers, Spranger and Pronk, that five or six villages in the FAP-20 area were turning into sand bowls. A political point had been scored, but when research on desertification was commissioned, 'we couldn't find anything' (interview, Bangladeshi researcher).

Interviewees contracted to do qualitative research felt they were pressured by their principals to skimp on their thoroughness by imposing impossible deadlines. Consultancies hiring them often had little truck with qualitative research associated with need assessments and researchers felt the end reports were sanitised to comply with donor and GoB wishes. All researchers I talked to felt uneasy about the fate of their findings, ranging from misrepresentation to suppression of findings (interviews, also Soussan, 1999). Over time, researchers and consultants learned to stipulate no interference with the result, or that their findings could be published in accessible form elsewhere.

5.8   CONCLUSION

Compartmentalisation is, in a metaphorical sense, a state of mind. It is to see things as separate from each other rather than related (Kemp, 2004). 'Despite subsequent attempts to rewrite its genesis' (Faaland *et al.,* 1995) the emphasis and starting point for the Flood Action Plan was a Flood Control and Drainage (FCD) approach - a technical fix with well-intended participatory add-ons (as analysed by De Bruijne, 2007), but became politicised by NGOs and local groups. While the compromise contained structural as well as non-structural aspects, the emphasis was on structures for agriculture.

The Flood Action Plan was the biggest riverine flood protection project ever proposed in Bangladesh. But it was scaled down well before it took off, and in 1995, only the compartmentalisation project continued. The intervention that became emblematic of the Flood Action Plan, FAP-20, affects an area of only 13,305 ha. FAP therefore was not the 'mega-project' the French envisaged (Boyce 1990) nor what its critics claimed it had become or even a predominantly structural flood programme. In hindsight, it was beside the point for FAP critics to zero in on the supposed enormity of the technology – the embankments and compartmentalisation. The billion-dollar 'mega-project' Boyce had warned about in 1990 was scaled back to a US$200 million programme of studies for FAP as a whole. A number of low embankments that were already in place before FAP, the 'Tangail Horseshoe' built in the 1960s under the World Food Programme, were strengthened and supplemented under FAP 20. But far too many structures were put in place (engineers now acknowledge this) that can clog up the channels, creating drainage problems. Moreover some structures failed, as did FAP-21, the heroic attempt to rehabilitate 225km of the Brahmaputra Right Bank Embankment project.[231]

Significantly, FAP became emblematic of a much wider range of contests about state-society relations (representation) and Bangladesh-donor relations, state-market relations (privatisation) and the balance between agriculture and fisheries[232]. Reforms and participatory initiatives were implemented but failed to improve the sustainability of the project beyond its completion date.

FAP was originally legitimised with reference to 'physical security' and resisted on a human-rights platform. A concern with security (saving lives) was clearly the impetus behind FAP as a whole, but the nature of Bangladeshi life provides less clear-cut positions in the balance between protection and risk-taking than it does in the Netherlands, so that the 'fight against the floods' made less sense in a Bangladeshi context. Apart from some local demonstrators, FAP-20 did not rate as a physical security concern in the debate.

Indeed, the constituency of project beneficiaries changed dramatically in the course of the project. At the outset, the flood management objective benefited landholders, while apparently

not excessively damaging other stakeholders. While Tangail Town was originally not provided for under FAP-20, in the end, there was a consensus among the local interviewees I spoke to that the main beneficiaries were the townspeople keeping dry feet rather than the farmers.

Both the river as threat (physical security) and human rights (vulnerability) were equivocal in Bangladesh, and had more immediate resonance with a European and American than a local audience. They also reinforced mutual stereotypes and antagonisms between ´engineers´ and ´sociologists´, strengthened by a lack of communication between them. The politicisation of the project forced a *rapprochement* between the two, which also catalysed more integrated thinking on water management and participation, which is now widely regarded as positive. The opposition to FAP managed to push a more 'integrated' problem definition by putting environmental and livelihood (fishing, cattle, groundwater) issues on the map. Protesters placed the 'development and participation for whom?' issue squarely on the agenda successfully countersecuritised human rights by staging their protest in a media-friendly way.

The *discourse alliance* (Hajer, 1995) in the Bangladesh case therefore can be summarised as a combination of political fatalism and engineering dominance (control) for economic security, based on securitised food security, while the *counter-alliance* counter-securitised livelihoods, human rights and, ultimately, sovereignty.

Probably the most powerful element in the mix was the way the oppositional alliance within and outside Bangladesh managed to portray (frame) FAP as a whole as a most unwelcome external intervention - in which Bangladeshis were treated like guinea pigs in a laboratory experiment. For them, the flood plan was more like a 'protection racket' (after Tilly, 1992) than a help. As transferred technologies, compartmentalisation and poldering did not quite translate. The apparent similarities between Dutch and Bangladeshi landscape are gainsaid by the power of the Jamuna, which is rather greater than that of the Rhine, and the absence of an economic support base[233]. But apart from a manageable physical environment, compartmentalisation also depends on high standards of construction, Operation and Maintenance and a stable rule framework, which is sadly deficient in Bangladesh.

As a programme of action research FAP set out to kill perhaps too many flies with one swat. It provided a research opportunity to minutiously chart the hydrological and socio-economic situation in a small area. Compartmentalisation and (the later conception of) participation proved more popular as an idea than their opponents would have it, but both compartmentalisation and participation were far from self-propelling. While in hindsight a great deal was learned, whether transferability of this information to the national scale was achieved or even possible is doubtful. GoB intention to replicate findings came to nothing and there was limited use of results.

The success of the NGO lobby seems to have been due to its ability to provide a contrasting paradigm that struck a chord with the *Zeitgeist*. The opponents to FAP wisely concentrated on a human rights platform rather than 'living with the flood'. They would have a hard time defending 'living with the flood' in the light of the livelihood consequences of the 1988 flood. While they could successfully claim that post-flood years bring bumper harvests, the winners and losers from this bumper harvest are not the same people, as Houscht (n.d.) notes. 'Living with the flood' in Bangladesh is neither symbiotic nor conflict-free because of the many deaths and relocations floods bring.

As the concise history above has shown, it is not unthinkable the pendulum will swing the other way again. Until that pendulum swing, the grand ambition to eliminate floods forever has given way to an acceptance of uncertainty and institutional reform. When in 1998, the 'worst flood of the 20th century'[234] the number of fatalities was lower than in 1988 (official figure: 1050), this was attributed to investment in better flood preparedness (Ahmad *et al.,* 1998) and, by some, to an improved food management system inspired by West Bengali economist Amartya Sen's (1981) theory of entitlements. This seemed to drive home the point that rivers are not the main problem and structures not the main solution.

When in 2004, around 600 people died in another bad flood, the water agenda had shifted to other concerns. It had been noted before that the Flood Action Plan only marginally addresses *cyclones*, which are the bigger killer by far. A cyclone hitting Chittagong in April 1991 claimed around 140,000 fatalities by drowning, deafeningly resonating the 1970 cyclone that took 200,000 lives. The number of fatalities claimed by floods is a relatively modest figure compared to cyclone fatalities and with better management it can be significantly reduced – hence the new CPP: Cyclone Protection Project. Coastal protection and water contamination with arsenic are now seen as far bigger threats to popular well-being in Bangladesh.

Nevertheless, in 2006 the Asian Development Bank decided to follow up on its original Flood Action Plan project in the region of Khulna-Jessore, FAP 4, in the Southwest Area IWRM project. Many of the regional FAP reports were uncovered and original consultants like Dirk Frans were contacted. It seems that compartmentalisation is getting its second (or third) wind in this project, and this time ´water security´ does feature in the project document[235].

Glossary

Beel   A low-lying depression in the floodplain that generally contains water throughout the year, a small lake or backswamp.

Khal   A natural channel, minor river or a tidal creek

Haartal   General strike

Khas   Commons, owned by the state or religious community

Mastan   Thug, hired to beat people up

Thana   The administrative unit of local government above the union level, consist of three to ten *unions* (the lowest unit of government in Bangladesh

Chapter 6: The Maaswerken project: fixing a hole?

6.1   INTRODUCTION

The Dutch are famous the world over for draining and poldering marshes. So thorough were they that only 3% of the country is still marshland. The developed land was defended with dikes and embankments. When a high-water event hit the Southeast in 1993 and 1995, the Netherlands had not seen a riverine flood since 1926. The near-flooding of the river Maas (Meuse) served as a wake-up call for the Southern province of Limburg. Dramatic pictures at Borgharen, where the Maas enters Dutch territory, incited national politicians to make bold promises: 1 in 250 year safety by 2005 and 100% coverage of the whole Maas in 2015 (van Leeuwen *et al.,* 2002).

The crisis event opened a window for special legislation in which everything seemed possible: special powers, unlimited resources, informal co-operation with citizens and a new lease on life for a languishing project, Maaswerken, to enhance the area's natural beauty by broadening and deepening the river, self-contained financially from the sale of gravel dug up from the river bed. While the original project focused on the Common (or Border) Maas area, the Southernmost stretch which is a recognised site of great natural beauty the plan developed into something much bigger after the flood of 1995.

The case study especially zooms in on what became a contentious issues: was flood defence really a security issue, and therefore eligible for urgent, special treatment, as the province of Limburg claimed?

This chapter sketches this debate as it traces the highs and lows of the Maaswerken plan from its conception in 1985 to its contractual formalisation in 2005. After sketching the run-up to the plan in Section 6.2, it will pay special attention to the immediate post-high water period (1995 – 1997), when quick and dirty decisions were made that however casts a long shadow over the project's future, both under central (Section 6.3 and 6.4) and provincial leadership (Section 6.5). Section 6.3 pays special attention to how the definition of security came to be played out in the context of the perennial struggle between Holland and Limburg, West and South, core and periphery. I will look at the various actors' legitimisation and delegitimisation strategies, which impinge on the definition (framing) and reframing of the problem.

The river stretch at issue is delimited by Maastricht (in the province of Limburg) to the South and Mook and Boxmeer to the North, in Brabant. While, the whole of the area is affected by the eventual project, it originated and generated most of the debate in Limburg. The case study will therefore mainly zoom in on the latter province.

For this case study, 16 semi-structured interviews with key actor groups from the public (local and national), private (gravel kings) and civil-society sectors (environmental and parish council) were held. Field visits to the project site were made in 2000 and 2005, the key project documents and PR materials analysed and a press analysis made based on the clippings from Rijkswaterstaat documentation and the LexisNexus data base.
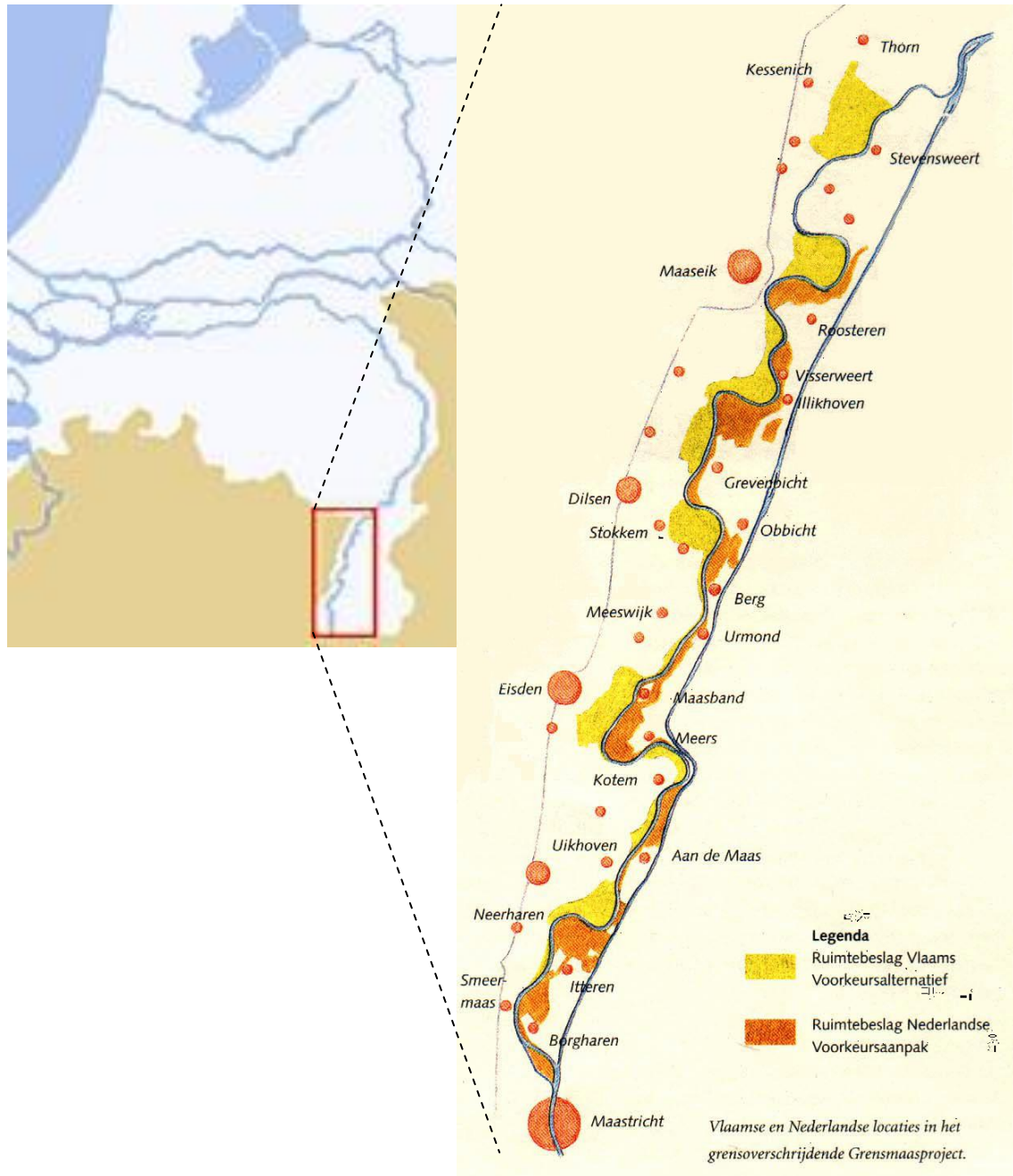
FIG 6.1A, 6.1B: Location of the Grensmaas

6.2   HOW THE FLOODS SAVED THE MAASWERKEN

6.2.1   *QUARRYING FOR NATURE: AN UNEASY COMPROMISE*

The Maas originates in Northern France, near Nancy, and carves out a deep valley in France and Belgium before entering the Netherlands at Eijsden, where it is a natural border between the Netherlands and Belgium for 50kms [236]. As the river changed its course in the past millennia, the Maas left a large fen in Central Limburg and as the earth crust rose, it caused the river to carve out new valleys, the older floodplain became what are now river terraces. As a consequence, the river is deeper than the hinterland, uinlike the West Netherlands, so that floods do not cause damage beyond the area immediately bordering the river.

Given the area's low population (Grensmaas: 15,000 inhabitants in 1998), extensive agriculture (2260 ha of agricultural land; MER Grensmaas, 1998) and relatively high altitude respective to sea level there has not been an obvious need to dike up the river Maas in most areas down to Mook and Boxmeer. The Grensmaas however was fixed between 1860 and 1890 as a narrow trench of some 60 m width. As a result, the river speeded up and eroded the gravel river bed.

By Dutch standards the Grensmaas has a steep drop - 45 cm per km - as it enters the Netherlands over 800 kms from its source, after which the gradient flattens sharply, and the river loses its momentum. This stretch of the Maas, from Maastricht to Maasbracht, was originally a braided river, a system of gullies with natural gradients and low-lying islands which were frequently flooded. This is an unpredictable river stretch: the mean discharge, 230 m³/s, is not a very informative figure. As the rain-fed Maas is prone to extremes, from flashy floods of 3100 m³/s (in 1993) to zero, an effective flood warning system is no luxury (Duivenvoorden, 1997). The steep drop makes the Maas the only Dutch white water river, and badly suited to shipping. As ships can use a side channel, the Julianakanaal, the absence of navigation benefits the survival of rare fish species.

The Grensmaas (Border or Common Maas) forms the border with Belgium The stretch following the Grensmaas is called the Zandmaas (Sandy Maas), because its slower flow promotes sand and silt, which are commercially not very interesting. By contrast, the faster-moving Grensmaas, deposits gravel. Given these valuable gravel deposits, the otherwise scenic Maas has been exploited as an economic resource. Quarrying deepened the river, creating thousands of unsightly gravel pits in Southern Limburg, filled up with water and used for pleasure boating (*Maasplassen*). Gravel digging also generates noise, dust pollution and heavy transport. Cracks in houses still evidence damage from the vibrations that come with digging. Together with nature organizations, citizens from the affected towns staged protests.

Meanwhile a greening of Dutch river management was taking place. Environmental conservationists started the fire, but were joined in 1980 by notable citizens protesting the damage dike reinforcement would do to the historic town of Bakel, Central Netherlands. This heralded a new era in river management in which acceptance of security measures could not be taken for granted. Environmental consciousness also affected within government, where 'green engineers' in the Departments of Agriculture and Public Works made their influence felt. The World Wildlife Fund's 'Living Rivers' (Helmer *et al.,* 1992) report championed untamed, unconstrained rivers. Giving the river more space to braid and meander seemed an exciting perspective. Such visions inspired several 'green engineers' to take a fresh look at the Maas' potential to create 1500 ha of natural values that could form part of a national Ecological Main Structure linking habitats throughout the Netherlands.

The earliest ideas for a comprehensive, greener approach to the Maas valley date back from 1984. The concept of developing nature came from a group of driven civil servants from the Agriculture and Water Departments in response to a prize contest set by the National Planning Agency. The underlying dilemma was that agriculture, still a powerful sector, is not a good basis for nature conservation, while just buying up land for straightforward conservation seems like a

wasted opportunity. Quarrying seemed to offer promising opportunities for integrated regional development to create 'new nature' and improve 'spatial quality' (de Bruin, 1987). After a Wageningen-based hydrological consultancy found that the Grensmaas area had potential for such 'nature development (Klink, 1985, 1986), another consultancy, Stroming, followed up with a concrete plan (*Stroming*, 1990).

At the turn of the 1990s, the provincial government decided to phase out quarrying, bringing the hope for citizens to be rid of the nuisance after 70 years of excavations. To safeguard the future of the excavation, industry gravellers and province concluded a voluntary agreement in 1990 between to dig up 35 million tonnes more, designating the Maas valley as the final site for quarrying - the last profitable gravel site in the Netherlands. Limburg's Provincial Council issued its intention for a preliminary Environmental Impact Assessment (EIA) for a provincial excavation plan in November 1990. This EIA however was aborted due to NGO pressures for a more environmental approach (Teisman, 1995).

Combining gravel digging with environmental beautification seemed an elegant way out of a bad situation. Inspired by the French river Allier, which the plan's initiators liken to the look of the Maas in earlier times (*Stroming*, 1990), the project envisages an exciting natural stream with an interesting variety of habitats. Instead of fixing the riverbank, the original channel is broadened, which creates space to reduce the flood risk. The topsoil, which is commercially worthless, is used to fill the holes created by gravel digging. The Grensmaas river broadening project thus became a nature development project with an additional role for flood protection.

The intention to carry out the 'Maas valley project' was formalised between the Ministry of Agriculture, Nature and Fisheries the Ministry of Transport and Public Works (Rijkswaterstaat), and the Province of Limburg in November 1992, after which the Netherlands Economic Institute (NEI) and Twijnstra Gudde, a well-known Dutch consultancy, were commissioned to calculate the project's financial viability.

But the voluntary agreement gave rise to conspiracy theories about political deal making to suit the gravellers. Due to the prior history of resource excavation in Limburg, public trust was already decidedly low. In the early 1990s the province of Limburg was plagued by political scandals over construction and gravel extraction. For example in 1986 Aqua Terra, a shell company, bought and enclosed 8000 ha of privatised lakes, arable land and campsites at less than EUR 3 million, which some provincial political parties considered an unlikely bargain[237]. Moreover, the original 'green-for-gravel' deal had been promoted by a prominent Limburg Labour (PvdA) politician, Riem, who was later incriminated for taking kickbacks and having overly cosy relations with, among others, Panheel and Van den Biggelaar, two key gravel companies involved in the current project (Dohmen, 1996). This history was to haunt the Maas works for a long time coming.

6.2.2   THE FLOOD WINDOW (1995-1997)

In response to the 1993 and 1995 high-water events[238], the outlook changed radically in Limburg. The 1993 flood led to the evacuation of 8,000 people and a financial damage assessed at the time at NLG250 million, some EUR 122 million. While nobody died, the quick-onset floods caused considerable shock. Older generations were used to water nuisance, and would flood proof their house. But new residents, especially those whose Limburg properties were second homes, were not so flood-aware. They found the flooding of their basement garages and fitted carpets unacceptable.

After that first flood, timed close to the May 1994 elections, national politicians and press flocked to Limburg, sharing the outrage that a flood could happen in this day and age, and promising compensation and security measures. True to Dutch form, an advisory commission for the Maas, named after its chairman, Boertien, was instated to examine what should be done. It

favoured broadening and deepening the rivers to accommodate a large river volume rather than raising dikes (see Table below), along with some adjustments in sewer piping and spatial planning.

It is at this point that a triad gravel-nature development-security and the 'zero budget' precondition took centre stage[239]. At that time, the potential for cost recovery by combining nature development by broadening the river through gravel extraction was perceived as a major selling point. Gravel extraction would double or triple the river channel's width and lower the floodplain over the 45km Grensmaas stretch from Borgharen to Roosteren. After shallow gravel extraction for broadening and deepening the river, the Maas would be left to its own devices which, it was hoped, would create a varied, attractive form of wilderness.

The Boertien report claimed its preferred alternative ('2b') could be self-funding at no extra cost. Consultants interviewed in 2000 expressed strong doubts about this claim, though. An important factor in justifying a flood scheme is damage avoided, inferred from actual damage in past floods. One consultant doubted the damage assessment for 1993, and noted it was a mistaken assumption that the project would involve no extra costs for the project consortium other than for the economy as a whole. Finally, he noted, '2b' was the alternative marred by the greatest degree of uncertainty (int. 5). While proponents promised a billion Dutch guilders (approx. EUR 440 million) in additional economic activity and a boost for tourism, no one could predict with any certainty whether the costs and benefits of the project would cancel out. This point of uncertainty was noted with some frequency in press and other interviews as well. Van Leeuwen *et al.* (2002), to cite one figure, quote a 10-25% fluctuation in gravel revenue.

The '2b' alternative however quickly became a political reality when in the closing days of January 1995, the water again was at peak levels. Some 8500 people left their homes while others braced themselves for the flood at home. Unlike the Rhine and Waal area in Gelderland, where 250,000 people were evacuated (see next Chapter) the Maas did actually flood at Borgharen and Itteren (two parishes near Maastricht) and the cities of Venlo and Roermond further downstream.

Jolted by the public outrage, the Limburg authorities now expressed a far more favourable attitude to the Grensmaas project. The Provincial Council now was fully behind '2b' but demanded much faster project implementation than the projected 15-20 years, and wanted more money from the national government to realise this.

This was not as far-fetched as it may seem today. Despite the fact that no dikes breached and damage was much more limited than in late 1993, the national authorities really went all-out. A Delta Plan for the three main rivers, Maas, Rhine and Waal, was fast-tracked through Parliament and a series of temporary flood defences were planned along the main rivers.

Informal and formal governance
As a first, largely symbolic (Teisman, 1995) response to the high-water events, *kaden* were put into place under an emergency decision making regime. *Kaden,* literally: quays, are earth embankments covered by impermeable clay. There are two types of *kaden*: revetments in residential areas and 'green embankments' for rural areas. These embankments were built around several flood-prone villages to provide protection against 50-year floods; the entire project is to bring this flood risk down to 250-year floods.

The emergency measures taken in the framework of the Deltaplan Grote Rivieren (DGR) enabled a fast-track process accompanied by, it appears from the interviews, a great deal of informality. To realise the crash programme, the DGR pushed aside all legal directives governing permits and exemptions. The Special Law governing the DGR, to remain in force until January 2001, bypassed all regulations including the normally compulsory Environmental Impact Analysis (Dolfing, 1996, Driessen and De Gier, 1997). It extended the existing Expropriation Law which already provided for immediate sequestering lands where no amicable settlement was possible:

where a clear and present danger is applicable, restrictions can be declared inapplicable. It was feared that this would not hold once the danger had passed and the waters had receded, so these powers were extended (Driessen and de Gier, 1997). One need not have worried, though: out of the 600 cases land was needed for the measures in Limburg, only two (0.33%) required formal impoundment, the rest of the cases were settled amicably. Social control to co-operate was high: no one wanted to be (seen to be) in the way of greater safety (Driessen and De Gier, 1997).

Where residents started to worry about the loss of so-called LNC-values (landscape, nature, culture), which the Advisory Commission for the Maas prioritises, the *Raad van State* (Council of State) ruled that residents' interests (i.e. *dry feet)* prevail:

> 'That was great planning on the part of the river (…) We needed the report [clearance from the Council of State, the administrative appeals court] within 2 months. That would be in July or August and then the Council of State is on holiday. But we succeeded, so the *kaden* could be built in two years rather than five.' (interview, Maaswerken director)

Many stakeholders had other concerns at this time. They just demanded the fastest possible implementation and a higher safety standard. 'Everything was possible,' as one respondent puts it. Decisions were made on the hoof backed up by 'reparation laws': when the plans proved illegal or risky, reparation measures were rushed through, legalising facts on the ground. All this resulted in substantial changes in the programme of works being made, which were often at odds with zoning and environmental directives. After the 1993 floods, planning permission was effectively blocked. But in the general atmosphere of co-operation and informality, the drawings were frequently changed to accommodate local interests. A little-known but telling example emerging from the interviews concerns the soccer grounds at Borgharen[240]. In the original plans, these grounds were not to be protected from the Maas - only the residential area would be ring-diked. Local developers however had set their sights on the grounds for a housing project, 170 properties in all. Once the football grounds fell within the protected area, the development remained on.

Under the DGR, the water management boards (*Waterschappen*) were charged with the implementation of the *kaden* programme, and given NLG 100 million (EUR 435,000) to do this. The Waterschappen are venerable, elected functional bodies, which exist in parallel to territorially based provincial government under different accountability patterns - initiated by farmers and monasteries as early as the 13th century, they operated separately from the public sector until they were incorporated in 1992. The boards hammered out the details of the *kade* plan in close consultation with Local Authorities and a heavy input on the part of the consultancies - Grontmij for North Limburg, the Heidemij (now Arcadis) for South Limburg. These Waterschappen convened every conceivable action committee, took them round the area and inventoried everyone's wish lists, varying from people who did not want a *kade* in their front garden to a parish that did not want to be split in two by a *kade*.(interviews)

In the process, the Waterschappen feel, much local knowledge was gained from citizens who knew a great deal about past Maas flood patterns. All in all, co-operation with local actors and contractors went, as two interviewees put it, 'perfectly'.

But things went a little too smooth for the provincial government's liking. A provincial interviewee noted:

> 'fast-track decision-making has its risks too. The Zandmaas project is a 'calamity' project, which [fear of calamity] is always poor counsel. You will always be overtaken by new ideas.' (interview, project leader)

The provincial authorities progressively pulled out of the informal consultations, fearing it would come to blows with the national authorities. Where the Waterschappen saw positive

societal energies released by calamity legislation, others saw as a monster, flouting all regulations at the expense of the taxpayer.

This retracting move confirmed the Provincial government's position as 'the authorities', while from the interviews and press review a distinct impression imposes itself that the local authorities and Waterschappen do not view themselves as such.

The provincial premonition proved to be fully justified, however. While local stakeholders were very happy with the speedy decision-making enabled by informal decision-making, its results were condemned by the national Comptroller (*Rekenkamer*). and the Council of State. For some in The Hague, the bunds episode was seen as another example of how things go out of hand when done the Limburg way (interviews). This has had its repercussions on the Maaswerken multi-project, which in future was to be far more tightly controlled from The Hague than the *kade*-raising operation. The below Table, 6.2, highlights between the Maaskaden and Maaswerken:

Although, as we have seen, the floods triggered the fast-tracking of decision-making, the Maas project still needed to be legitimised. Not everyone found the emergency intervention so obvious. An early dissenting voice from the world of academia came from Professor van der Ven, a water management historian and the project's most vocal dissenter from the academic world. While other actors emphasised one or more of the three rationales – gravel, flood security, nature – van der Ven clearly failed to see why there should be a need for the Maaswerken full stop. He felt that the floodings of 1993 and 1995 jump-started an unfortunate political process that should have been resisted. Whenever the future of water management was debated in the newspapers[241], van der Ven wrote to the Editor. The professor has called the project a 'waste of taxpayers' money', a 'mad plan' and 'deception of the people'[242], and challenges the need for the river Maas works:

'The Maas has a 4 km floodplain. In a flashy rain river like the Maas, it is quite normal for the floodplain to be flooded now and then'[243].

The water historian felt the envisaged *tree lines* would be a brake on water drainage (van der Ven & van Dooren, 1998) and noted that within *Rijkswaterstaat,* several civil engineers actually advised against the *kaden* - preferring to adjust the resilience of residences to the river's variability, e.g. through flood proofing of the most at-risk properties (van der Ven & van Dooren, 1998: 14).[244] Flood proofing, incidentally, could be another useful application for polluted sediment, which could be used for building mounds for raising houses (*terpen*) in new or existing locations for flood proofing. Still, when confronted with this alternative, one interviewee, a noted expert, rebutted the idea (flood proofing) on financial grounds: 'Raising a house costs NLG100,000 (EUR43,500) per house. Raising 14,000 houses would cost 1.4 billion (EUR 635 million).'[245]

Security policy and normal politics

As a result of the two high-water events, the flood protection element in the Maaswerken moved up to the top of the agenda which now consisted of four items (Table 6.1):

TABLE 6.1   The Maaswerken in brief

What ?	**Where?**
Gravelling	Grensmaas
Flood defensce	Grensmaas, Zandmaas
Nature development	Grensmaas (++) Zandmaas (+)
Shipping	Zandmaas, Juliana Channel

In light of the security governance interest of the present study, the contrast between the Maaskaden and Maaswerken episodes (Table 6.2) is illustrative of the difference between security decision-making and normal politics.

TABLE 6.2 Striking difference between Maaskaden (fast-tracked emergency measures) and Maaswerken (post-emergency measures)

Maaskaden (1995-1997/2001)	Maaswerken (1997-2005)
Triggered by calamity	Gradually developed by informal group
Emergency law: Delta Plan Great Rivers	Lack of clear-cut legal framework
Hard (if green) defences for protection	Combination of nature creation, flood protection and improved navigation
Waterschappen (water boards)	Public/private/NGO consortium
Fast-track procedure	Normal procedure
Polluted material disposed on no-questions-asked basis	Legally questionable disposal of polluted aggregates
Dispensation from Environment Impact Analysis (EIA)	EIA necessary
Informal participation	Formal participation
Province pulls out	Province takes the lead then backtracks
Openness	Self-imposed secrecy

What makes security decision-making so effective in getting things done? A first element has moral overtones. It seems that in these secularised days, disasters continue to have religious significance even for the secularised. The expression 'Act of God', which is still used in the insurance business, indicates that no one can be held responsible. However, the expression is also used by those in the engineering community who feel that a disaster is a punishment for human negligence. Like the ten plagues of Egypt, a flood disaster can be perceived to 'discipline and punish' a society such that it starts to make amends by adopting a pro-active attitude in the face of flood risk.

Taking a step back from this normative approach, there is a strong sense that disasters are exploited in the decision-making arena as windows of opportunity for bringing in a set of measures that was already waiting in the wings, bringing enough pressure to push preferred alternatives through. When there was a support base for a flood scheme, the beleaguered Grensmaas plan could be tabled and coupled (linked) with security provision simply because it was already there – Teisman (1995) calls this a 'clever solution'.

This perspective, so reminiscent of 'policy streams' or 'garbage can' theories of decision-making (Cohen, Simon and March 1973), attracted a fair number of supporters in the water sector:

'The TAW [national Technical Advisory commission] thought that after the flood of 1993, the strength of the opposition to dike reinforcement would taper off. But soon the scene looked the same: the same resistance, more lawsuits (procedures), Thus the second high-water event was greeted with open arms, like a second chance. They went all-out, so the evacuation was logical.' (interview, RWS senior engineer, 2005)

At that stage of negotiation on the Maas works, another flood would not have gone amiss:

'In political terms, it would be a good thing if it would not take too long until the next flood', (Waterschap spokesman).[246]

While the Maaskaden were fast-tracked with special legislation, the Maaswerken project had to go the sluggish way of any other major infrastructural project. The flood some hoped for never came, but in 2000 as well as 2003 water again was pretty high. The mayor of Maastricht seized the opportunity to intervene

in the debate. Procedures take too long, he claimed, the national government should do something about the structural flood risk in South Limburg.

'Had the water been only two feet higher, the Minister for Transport would have felt the need to rush plans for Maas security', said the Limburg Governor[247]
'It would be scandalous if a new floodwave were needed to get the money and get all parties in line', Limburg Provincial councillor Vestjens.[248]

It is easy to see what is so attractive about crisis decision-making. At the national level, where flood management had previously been unpopular, the mediagenic river floods triggered a fast-track for decision-making on the River Delta Plan (Dutch abbreviation: DGR). Amid a discourse of 'unacceptable social disruption', central government took over in 1997.

Rounds	Goal Priority	Reports
I: Gravelling only	Ways of gravelling that minimise damage to natural values	*Onderzoek potentiele grindwinnings- locaties in Maasdal*, Oranjewoud, 1990
II: Environmental motives come through	Grensmaas as nature development project with a gravelling element	- *Toekomst voor een Grindrivier*, Stroming, May 1990 - *Project Maasdal: natuur- ontwikkeling en grindwinning*, December 1992 - *Project Grensmaas, Grind voor Groen*, startnotitie MER (EIA), January 1994
III: Grensmaas in thrall of water nuisance	Nature conservation and security on an equal footing	- *De Maas meester*, advies van de Commissie Watersnood Maas ('Boertien'), 12 december 1994
IV: Part of Delta plan for the Great Rivers	Security dominates, environment is secondary, financial feasibility off the radar	Deltaplan Grote Rivieren, Public Works Department, 1995

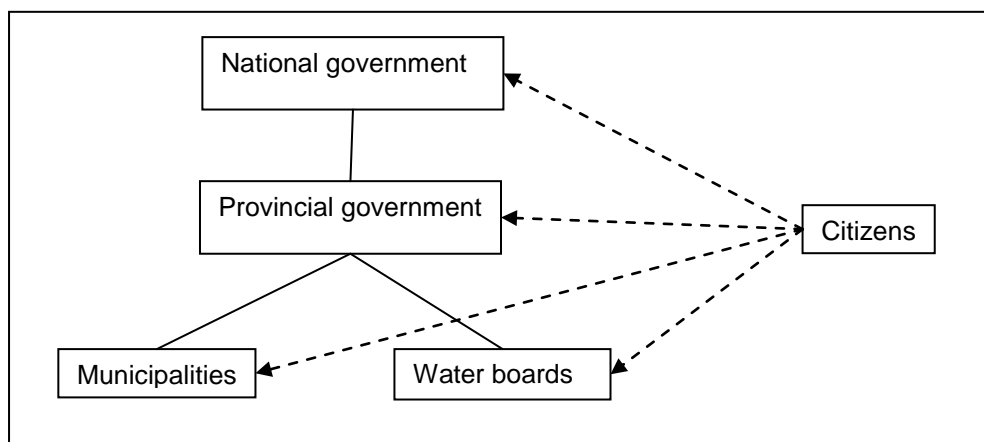FIG. 6.2   *Maaswerken project decision-making up trajectory to 1995: four rounds (Teisman, 1995)*

FIG. 6.3   *Institutional framework for water management in the Netherlands (Based on Havekes, 2005)*

TABLE 6.3   Chronology of the Maaswerken

1987		First plan	Section
1990		Gravel compromise: only 35 million tonnes more allowed	
1992		Plan-Stroming: 'green for gravel'	6.2
1993		First high water event	
1994		Report Advisory Committee on the Maas	
1995		Second high water event, DGR, *Maaskaden plan*	
1996		*Maasplassen* sold to Province and resold to nature NGO	6.3.1
1997		RWS steps in; Formation of Maas consortium, linking Grensmaas and Zandmaas projects	
2000		Scope 2000 plan	6.4.2
2001	Jan	Protest over new plan	6.4.2
	Jun-Dec	Limburg takes over, develops Eindplan, instates Gebiedscommissies	6.5
2001-2002		Antitrust lawsuits, pollution scandal Project leaders dismissed;	6.5.2
2002		Tumult over protection level	6.5.3
2003		Near-high water, new calls for speedy Maaswerken implementation	6.5.3
2005		Acceptance of Provinciaal Plan, Start of Maaswerken project	6.5.4
2017		Envisaged completion of the project	

6.3   HOLLAND VS. LIMBURG, RIJKSWATERSTAAT VS. PROVINCE

6.3.1   *REASSERTING HEGEMONY? RIJKSWATERSTAAT TAKES THE REINS (1997)*

'Could it be that Limburg is treated quite differently from the rest of the country?' (interview, provincial public officer)

When the Grensmaas project was mooted, central government was involved in a process of decentralisation of its environmental and spatial planning policy. The project was presented as a nature development plan, and the province of Limburg was supposed to see to the implementation of, notably, Strategic Green-Area Projects (SGPs). The national river manager, Rijkswaterstaat, was involved in a restructuring process itself, devolving many of its security tasks to *waterschappen.* The water department had been instated under the French Occupation in 1798 to put an end to long history of competitive diking between polder boards. The agency was said to have developed into a ´state within a state´ when it was mandated to start a crash programme to deliver the nation from flooding after the 1953 coastal floods. But its defences had seen increasing opposition in favour of cultural and landscape values, and a steady greening of river management had de-emphasised the flood security aspect. Rijkswaterstaat had become a department like any other (see Chapter 7.2 for more detail on this).

However the high water events of 1993 and 1995 and the handling of the *kaden* changed all that. In 1997 RWS, which has by far the bigger budget and technological expertise in the water sector, took over as the pivotal actor in a make-or-break situation:

'That [the Comptroller's criticism of the *Maaskaden* project management] has resonated in this project. Before that there was unease with RWS. Two days after the Comptroller's report, all of a sudden RWS says: let's create a project organisation together. Let's sweep the whole thing together, in an organisational sense as well.' (interview, Limburg province)

The EUR 340 million Grensmaas nature development scheme was linked with a EUR 900 million project for the downstream Zandmaas, a project to provide flood protection for a 148km stretch (Linne to Hedel), and the Maas route to improve navigation.[249] A single Maas works consortium now organised both the Grensmaas, Zandmaas and Maasroute works. The collective

Maaswerken project organisation still had a tripartite constituency, with Provincial authorities, Rijkswaterstaat and the Ministry for Agriculture, Nature Conservation and Food Quality. But the Maaswerken was now widely regarded locally as a Waterstaat project, not just by Limburgers but also by the Agriculture Ministry which at times formed coalitions with the Ministry of Housing, Spatial Planning and Environment (VROM) when they felt too outnumbered (interview, VROM 2000).

In the early stages of the Grensmaas project, protests were fairly muted. After the floods, Limburgers wanted the project badly and speedily. From 1997, however, when Rijkswaterstaat stepped in and made the Maaswerken a 'security-plus' project, protests from vocal locals – individuals, NGOs and municipalities - against the plans mounted.

The 'takeover' of the Maaswerken project by the national ministry in 1997 did not sit well with pockets of the Limburg population and politicians. The Maaswerken became a new arena in which old contrasts between 'Limburg' and 'Holland' were highlighted.

The Province of Limburg has a distinct identity, which is bound up with its history. In 1830 Belgium seceded from the Netherlands, taking the provinces of Brabant and Limburg with it. The Dutch responded with military force, reclaiming much of the two provinces. In 1839 Belgium gained independence and in 1843 the right of trespass was agreed. However, (Dutch) Limburg has continued to feel culturally separated from the Netherlands (e.g. Osinga, 1997).

The feeling of being subjected to 'Hollanders' was reinforced by the fact that Limburg traditionally was the mining colony of the Netherlands. Coal, limestone, silica sand and gravel are only found in Limburg, and coal mining was a major employer in the first half of the 20th century (van der Meulen *et al.*, 2006).

When the mines closed, mass unemployment and poverty ensued. For decades, Limburg politicians demanded, and got, compensating measures. Limburg got its own university the University of Maastricht), and the Central Bureau for Statistics (CBS) moved there, creating much-needed white-collar unemployment. Limburg lobbyists grew accustomed to having their way, which gave its image a bad taint:

> 'The perception of Limburg in The Hague is that of a merchant, the type that would sell their own mother. They always come [to The Hague] to see what they can get' (interview 3, a Limburg administrator himself).

In the 1990s, however, things seemed to turn for the worse for Limburg. Some have linked this to the political change at national level: the 'purple (red-blue coalition of socialists and liberals) politics' of the 1990. Both in the national coalition Cabinet and in Limburg, the Christian Democrats (CDA) were no longer represented after a 70-year rule. Since CDA traditionally has a strong base in the province, the party had been most vocal in representing Limburg at the national level. In addition, the social-democrats and liberals had no roots in farming. By contrast, CDA traditionally represented the agricultural interest and saw nature development plans as a threat (interview).

The feeling that the Maaswerken, originally a Limburg-initiated project, was hijacked by 'Holland' and engineered by 'Holland' engineers seems important in understanding the politicisation, especially after 1997 when Rijkswaterstaat took control of the project. Some Limburgers' sense of being exploited is reflected in the statute of the local oppositional coalition BOM, which 'doesn't want any more Limburg land to be sacrificed to Holland roads.' Limburger Ria Dielissen said: 'I am not against a 'safe' Maas and neither am I against nature development, but I am against [treating] Limburg as a colony'.[250]

Limburg interviewees professed annoyance that the province had to pay up for its own flood security, while the cost of flood protection elsewhere in the country comes out of the national Treasury:

> 'In the West of the country, the House of Commons monitors the state of the dikes for each and every square foot of dike [but not here]. I can't really get my head around that.'

This issue played out across political lines. As in the UK (see Chapter 8) the Maaswerken project provoked an intra-conservative debate: both the Minister and the key provincial delegate represented that political party, but stood opposed on the flood issue. Regionally the Maaswerken were supported by the same 'purple' coalition of socialists (PvdA) and 'conservative liberals' (VVD) coalition as that had formed at the national level.

One interview called the purple cabinet 'a Randstad government at the expense of Limburg.' Such sentiments allowed the centrist Christian Democrats, traditionally the largest party in Limburg, to present itself as the 'true' voice of the province.

But the Rijkswaterstaat initiative also raised expectations in Limburg.

'When it transpired that the Grensmaas might not be self-funding, the province didn't want to bear the brunt for that. At the same time, RWS said: the project is insufficiently directed (*regie*), in the end the shortfall will be heaped on us. The [1997] policy agreement makes RWS responsible, in a financial sense as well' (Interview Limburg, see also Adams, 2002)[251].

The Grensmaas had been bound to budget neutrality under the advisory Commission on the Maas, which means the Limburgers were expected to pay for their own safety and nature development from gravel sale. But the Zandmaas of necessity needed to be funded differently - sand is not nearly so rewarding. This led liberal provincial councillor Math Vestjens[252], responsible for the project from the provincial side, mistakenly to believe The Hague was going to cough up the difference.

However the national government did not see it that way. Leiss and Chociolko's (1995) axiomatic position that everyone will try to offload risk[253] was much in evidence for a long stretch of negotiation time, when the cost issue was pushed back until the end of negotiations:

'A large chunk of the financial deficit is due to the question 'who will take which risk'? 'The risk debate has been explored but not carried out. It isn't accidental that this (issue) has been deferred until the very end. The financial issue is a resultant of the risk issue. Currently we're playing hopscotch - so what are these numbers actually worth?' (Interview, Ministry of Agriculture, March 2000).

'Whoever, expecting to win the state lottery *mañana*, builds a fancy mansion [today], may seem a little bit frivolous. Nevertheless, the financing of infrastructural plans hardly exceeds this level of solidity' (VBKO, 1997).[254]

By taking a non-negotiable zero-budget approach in the face of rising costs, all stakeholders entrenched themselves in an impossible bargaining position which endangered the integrity of the whole project. In fact the demand for a balanced budget not only came from the government but also from the participating NGOs. Land in Limburg is owned by public (Staatsbosbeheer = National Forestry Agency), NGO (Natuurmonumenten = Nature conservation) and private (mineral extractors) organisations. As a public body, *Staatsbosbeheer* cannot invest venture capital in a risk-taking project, but the other two groups can and, unusually for an NGO, do participate. The NGO can only legitimate its participation by insisting on a 'neutral' budget, where costs and benefits cancel. Given the extreme unpredictability of costs and benefits, this has proved to be something of a political fiction. One interviewee reckoned the uncertainty about the economic proceeds of the gravel and sand extraction activities were '50%'. The President of Waterschap Roer en Overmaas felt this risk-aversity was 'too absolute: …Nobody, including myself, can predict the gravel price in fifteen years' time. You just have to take these sort of risks.'[255]

The water board president was a 'lone wolf' in this respect. Late 1997 the Public Works Minister upset the applecart by announcing that budget shortfalls forced her to postpone completion of all flood defence projects from 2005 to 2008. The Cabinet made NLG 560 million available for high-water defence on the Maas, but acknowledged this sum was not enough to realize a broad, integrated plan, as intended in the DGR. The Minister notes that the amount was

the result of a 'political choice'. She tried to assuage public concern by pushing forward the flood defence aspect of the Grensmaas project, so that 70-80% of flood protection goals would have been achieved by 2005. It soon transpired that this would be more likely realised in 2015 or 2017. The province of Limburg concluded this still meant additional financial risk and kicked the ball back into the central government's court.

When the new Vice-Minister for Water Affairs, Monique de Vries, offered some freedom to move budget from the Zandmaas to the Grensmaas budget, Provincial Councillor (Cllr) Vestjens refused the offer outright.[256] Some money could be found in a roundabout way, though. Given the rising costs, nature organisations were taking a bigger share in the management of the areas. Also Natuurmonumenten rather than the gravellers was buying the 750ha needed for implementing the Grensmaas plan with state subvention, as the Ministry of Agriculture subsidises any purchase for nature development[257].

The haggling over the budget made it easy to background that the Maaswerken not only has a cost component, but an economic benefit side as well. Economic opportunity has been a powerful driver for altering the terms of the project – either expanding the protected area to include brownfield development area, or for compromising and subverting security standards.

The gravellers' consortium, Panheel Groep considered the project as vital to its own economic survival (interview gravellers 2000). The claim to the need for economic security for Panheel and to protect jobs for the region is delegitimised as 'overdone' by other actors, suggesting the support base for these 'partial interests' is far from universal. The project itself holds out great opportunity to others too – consultants, contractors and the shipping industry. News of a water project had stimulated speculative behaviour to raise the price of land due to be bought up in the interests of the project. Lingering annoyance over the handling of the Maasplassen (the gravel pits now used as boating lakes) was rekindled when Suytcote NV, a private player linked with the company that very cheaply acquired lands in 1986 resold it in 1996 to Limburg province at EUR4.5 million, which immediately transferred them again to the nature organisation Natuurmonumenten and Limburgs Landschap on condition that they could be used for temporary gravel storage.[258] The Christian-Democrats in the provincial Council[259], felt the province indirectly funded the Maas protection scheme by agreeing to questionable deals with Aqua Terra in '86 and '96:

> 'We are probably caught in a trap set by the Minister for Transport and Waterways, who herself has refused to pay up for the Maas lakes. Suytcote is a shell company; with the same director as Aqua Terra, the current owner, who picked them up for peanuts in the 1980s. Suytcote mysteriously arrived as a contender to pressure the authorities to buy the lakes, apparently to drive up the price" (*De Limburger*, 19 June 1999).[260]

CDA also renewed lobbying efforts to develop the now-protected floodplain, which the improved standard of protection now enabled. There is always a strong push for revoking the tightened floodplain development rules for economic and housing needs.

A local interviewee feels, attributable to the image projected of the 'disaster site' by the national media. In the course of the 1990s, Borgharen became symbolic of the Dutch high-water events; the national news correspondent, Harmen Roeland, would always turn up in a raincoat and Wellingtons. The local respondent claims that the dramatic flood footage was in some cases stage-managed to create a more mediagenic image on national TV. This, he felt, caused great damage to the local interests (interviewee 11).

It was the type of image that made then Transport and Waterways Minister Annemarie Jorritsma pledge 'safety for all by 2005'. In the next Cabinet (1998-2002) of the same political stripe, she went on to become Minister for Economic Affairs[261] and Vice Prime Minister. Promises made earlier could have backfired as the project ran into delay not only putting her personal reputation at stake but that of her Department as well.

A standard CBA was never really carried out. The Advisory Commission on the Maas had optimistically calculated a positive balance of EUR 50 million. After 1995, a cost estimate of about EUR 225 million was made, only to be superseded by a calculation that went up to twice that figure. But most of all,

'It was a political decision in the *Zeitgeist*. There were many authorities in the field [in 1995] to look at the misery. Misery, emotion and stress cannot always be expressed in money terms.' (*NRC*, 20 March 1999)[262]

The cost-benefit ratio was already compromised by a systematic underestimation of the project cost and overestimation of benefits. In the view of one former project director, the eventual real cost usually turns out to be the original estimate multiplied by a factor 'pi' (π). Were this not the case, he feels, no major project would ever get started (interview, 2000). In this context, commercial interests have often overruled security interests. However, (indirect) benefits also accrued when new developments remained exempted from the ban on building in the floodplain. This leniency caused some at RWS to despair[263]. Such lenience can only affect the project's real *cost-benefit* equation.

A social cost-benefit analysis was commissioned by Bureau Maaswerken to be conducted by the *Wetenschapswinkel*[264] of Maastricht University, but was never developed past the exploration stage. Reasons adduced were that:
- it is impossible to quantify all the costs and benefits
- research is not a priority for Bureau Maaswerken to the same degree as is promotion and information.
- it would not change the decision outcome anyway (Mourits and Potten 1998).

6.3.2   SECURITY OR FLOOD DEFENCE? RISK AND RESPONSIBILITY DISCOURSE

The standoff between provincial and national government was to an important extent predicated on the definition (framing) of the problem to be solved in the Maas. The *security* issue provided the key battleground of exceptional-project legitimacy, in two respects: is Maaswerken a security or flood defence project, and are we talking about flood or high-water nuisance?

But while anthropologists claim that people in general dislike uncertainty (Sjöberg *et al.,* 2004), political actors thrive on a degree of ambivalence and uncertainty (Trottier, 1999). Language games (rephrasing and reframing) can help them break a deadlock that would be hard to prise open otherwise. The semantic sliding scale on flood and high water (Fig. 6.4) created ambiguity. Securitisation on the other hand eliminates ambiguity (Friis, 2004). Especially Limburg actors and the project organisation itself have made liberal use of the word *'security'* (*veiligheid,* e.g. in POL, June 2000) in a very wide sense. This could make all the difference as securitisation would merit fast-tracking and extra funding for the Maaswerken.

Civil engineers, on the other hand, like things precise and clear-cut. In Dutch water engineering parlance 'security' means 'the degree to which the security standard for water infrastructure is met' in most of the technical water management literature, such as the authoritative national Technical Advisory group on Water Security (TAW, 1995). The referent of 'security' thus does not relate to people, but to the *stability of defence structures*. In this sense, the collapse of protection structures and soil instability can be ranked as physical threats – thus, it is quite correct to state that the security of the kaden should be a 1 in 250 standard, which means that they are not 'secure' when faced with a flood with a higher return period.
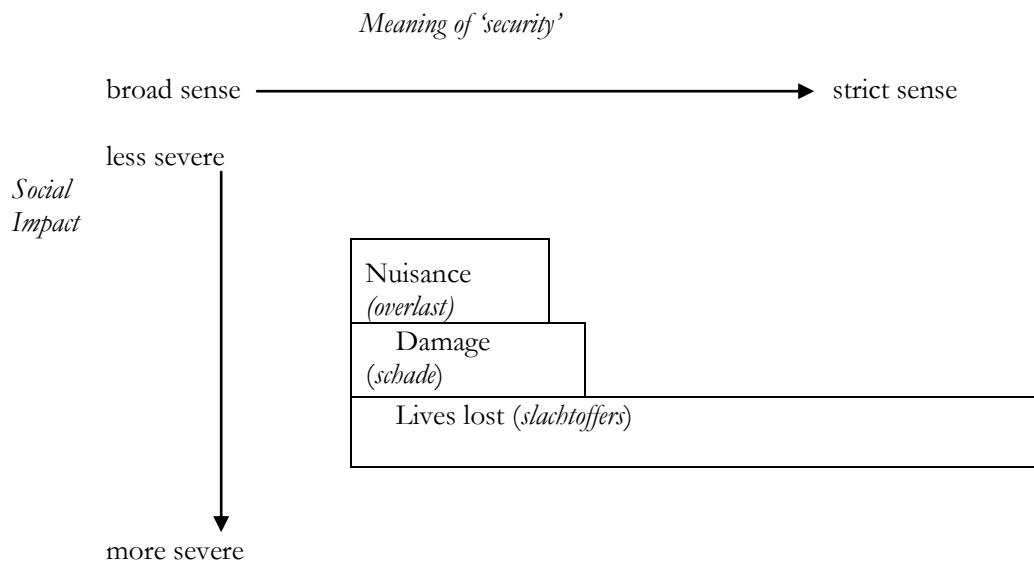
Meaning of 'security'

broad sense ⟶ strict sense

less severe

Social Impact

Nuisance
(overlast)

Damage
(schade)

Lives lost (*slachtoffers*)

more severe

FIG. 6.4   *Semantic sliding scale of 'security' which comprises stricter (more severe) and looser interpretations of security.*

Engineers in consultancies were careful to point these distinctions out to me [in 2000]. It seemed to irritate civil engineers that the Limburg actors continue to use the security discourse. 'There is continuous conceptual confusion. I am trying to make it clear there is a difference between [in]security and harm' (interview 5). One respondent from the research community claimed that even the *press,* whose reporting tends to simplify and amplify antagonisms and risks (Vultee, 2007) have been very careful not to connect 'Maas' and 'security'.

This idea seems wishful thinking. A trial run through Lexis Nexis, a large database on selected newspapers and magazines, yielded more than 1000 hits for the year 1999, only for the combination of the two words, ' Maas' and 'security'. Admittedly, all these hits could also contain the word 'no(t)', but a more selective survey of relevant regional press clippings from that year shows that the words *veilig, veiliger,* and *veiligheid* (safe, safer, safety) are prominently featured in relation to the Maaswerken. The Dutch word *beveiliging* (security provision), also quite prominent in the discourse, is somewhat more problematic as it can also translate as 'protection'.

This difference had attendant policy consequences in that the river reinforcements put in under the DGR were purposely not called 'dikes' but *kaden*. This label meant that they were not primary flood protection works, and as a consequence did not need to protect against inundations, but against 'nuisance' (interview, flood expert, 2005). This definition exempts the national government from responsibility. However, after a dispute with the *waterschappen*, the kaden were placed under the Flood Defence Act, so that they are a national responsibility and, by inference, come under national security.

Rijkswaterstaat's definition of security is much more restrictive than 'flood defence' - it is about life and death issues only. Limburg's comfortable position above sea level renders the security argument less convincing. To wit, no one has ever drowned in a Maas flooding (though the evacuation claimed a victim due to a sliding/skidding rescue truck), so it is not a security issue, strictly.

The deprioritisation of the Maaswerken as a security issue might also be inferred from the 1998 introductory leaflet to the Maaswerken. While full of the flood imagery typical of such leaflets[265], it never explicitly mentions 'security'. It drily notes:

'After the flood events of 1993 and 1995 (…) *kaden* were constructed, so that the most threatened areas are now better protected. (...) Reduction of the flood [risk] is therefore (...) the main objective of the Maaswerken.'

Schematically, the positions of actors on the question whether the Maas was a security issue in 2000 can be teased out as follows:

TABLE 6.4 Is there a question of a security issue on the Maas? Condensed analysis of the positions and answers taken by the key players, based on the interviews and press review

Yes:	waterschappen, Limburg province, regional press
No:	WL (national civil engineering consultancy), gravellers, VVD Limburg; RWS (qualified)

As it turned out, Limburg won a Pyrrhic discursive victory: the project won the security label, but lost the expected fast-tracking. Eventually 'security' did find its way into the policy discourse with respect to the Maas, including Rijkswaterstaat, which now defines the Maaswerken project straight away as:

'a major infrastructural project aiming to improve security by changing the catchment [*stroomgebied*] of the river Maas in Limburg, North Brabant and Gelderland' (www.rijkswaterstaat.nl)[266]

But there was a snag: by that time the philosophy of security had changed. As explained by the then liberal Vice-Minister, Schultz ten Haegen in 2003, the Ministry cannot and does not want to guarantee 100% security (Cleveringa Lezing, 2003). 'Improvement' was a good enough promise.

6.4   1998 – 2001: A BUMPY RIDE

6.4.1   1998: SELECTION OF ALTERNATIVES IN THE EIA

While local politicians played a part in the first round of Maas troubles, the most formidable opponent turned out to be the *MER-Commissie,* an independent expert committee called to approve the EIA document. The Common Maas and later Maaswerken projects were subject to an Environmental Impact Assessment (EIA), obligatory for major works. An 'unimaginable' amount of detail was collected. The Environmental Impact Assessment for the Grensmaas, weighing in at 7 kg and carried out by WL | Delft Hydraulics, IWACO and CSO, took 8 months to draft, and was well received (in 1996) by the MER-Commissie, the statutory body responsible for judging it. But for the Zandmaas, the EIA proved a major hurdle. The Zandmaas EIA weighed in at 12,5 kg, the biggest such document ever published in the Netherlands, took four years to complete, and was rejected by the MER-Commissie for not being precise enough. One major criticism was that only one (old) computer model was used, unfortunately named ZWENDL (lit: SWINDL). The EIA Commission advised the Minister for Transport and Waterways to re-research whether deepening and widening 'would make the Maas as safe (*veilig*) as the province takes it to be'.[267] 'The revised figures show that the level of protection will be 1: 40 rather than the agreed-on 1: 50.[268]

A novelty, inspired by European law, was that the EIA (*Trajectnota*) was to be used for the design stage itself, not after it. The EIA obliges the initiator to bring in three different alternatives and subject them to *inspraak* (giving people a say). Originally, *four* alternatives were presented for the Maaswerken: a 'zero option' (do-nothing), an environment-friendly option, an economy-friendly option as well as combinations of these (Lamerichs, 1996) to be assessed and presented to the general public.

In addition to the four alternatives presented in 1998, an engineer called Martens presented a 'fifth variant', which he rated to be cheaper than the alternatives presented by Maaswerken: elongated plastic bags along the riverbanks. Filled up, they push up the water level to achieve the necessary draught for navigation, which will cause the groundwater level to go up as well. They would be complemented by 10m wide channels alongside the river that take less space than the planned 100m wide nature development corridors [269] A regional interviewee expected this to be dismissed on financial and technical grounds:

"They cost about three or four times as much per km. Reliability of sand and clay gets better over time, while plastic and concrete get worse over time.'

To my knowledge, this fifth variant was not considered by the Maaswerken. This has not stopped the innovative technology from being tried elsewhere in Limburg for emergencies, if on a smaller scale.[270]

Eventually stakeholder consultation was carried out with stakeholder groups and Flemish counterparts on over *three* alternatives: apparently the zero option was dropped. The responses were collated into a Discussion Memorandum on the basis of which the final decision would be made.

However, by the time public information sessions were held, a pervasive feeling took hold that there was not much choice after all. This *early closure of alternatives* was in part attributable to cost overruns which provided a bias against the more expensive alternatives (various news clippings and interviewees). As the project faced increasing financial pressures, a final alternative was rushed through without any further consultation with stakeholders. It turned out that a pre-emptive deal had been struck to enable the Zandmaas pilot project involving a diversion trench at Lomm, implying the 'Combination Alternative' had already been selected while the Transport and Waterways Vice-Minister was officially still working on the decision[271].

In early 2000, when I conducted most of my interviews, three pilot projects were already in swing, even though it was still far from clear how the Maaswerken were going to be funded. Five years before, Teisman, a professor of Public Management at Erasmus University Rotterdam, had already warned that funding would be a key risk to project survival (*afbreukrisico*). Foreseeable project implementation issues were indeed deferred indefinitely: distribution of responsibilities, costs and how to implement the project without increasing the flood risk[272]. This situation promised to present major risks to the survival of the project, which is strongly tied up with the logic of excavation economics. Gravellers will indeed start on the most profitable sites, foregoing the unprofitable ones – mandatory clustering of profitable and unprofitable sites would be required to ensure the exploitation of all project sites. In its 1993 feasibility study, NEI had already noted that gravel companies see their profit fall under the safe 20% margin if they need to invest in clean-up measures. Also, the gravel market is deeply dependent on the rate of building activities and subject to heavy competition - by 1991, 60% of gravel was already imported from Belgium (Teisman, 1995).

In 1998 the national government decided to deliberately under-permit aggregates extraction to promote alternative materials (Van der Meulen *et al.,* 2006). As a consequence, in 1999 the province objected when Maaswerken asked for permission to start digging on six further locations, anticipating the Grensmaas plan, fearing the gravel companies would only sign up for the most remunerative locations. The Council of State in 2002 ruled the refusal was justified. This was a blow to the gravellers who wanted to start work straight away in anticipation of the project's kick-off which would only take place after 2005.[273]

Market and financial studies were carried out before and after the EIA but not during, and the gravel companies were not consulted for strategic reasons while experts in river hydrology, archaeology, toxicology, infrastructure etc. were busy devising their best alternative. Perhaps inevitably, when the new option was presented, it soon turned out the numbers did not add up.

Other professional hole-diggers in the *socio-cultural domain* were also affected by the local misgivings. Under international treaties, new infrastructural projects must be surveyed for archeologically important sites. The Maaswerken diligently preserved 143 important sites.[274]

While the importance of the heritage information is not disputed by local activists, the parish of Lomm however questioned the motives for the archaeological research carried out there for the pilot studies (Stassen, 2005). When the Maaswerken asked permission to dig 'trial trenches' (*proefsleuven*) there, it was feared the geological research benefits economic (gravel) interests rather than heritage conservation.

The river experts did not use the EIA as an evaluation tool but as a way to optimise the 'best' design. Uncertainties and dissimilarity of truth claims were overcome in true Dutch engineering tradition, by over-dimensioning the weak or unknown aspects in their constructs (Leenders, 2004: 154). Rather than make an integrated evaluation of different alternatives, compensating and mitigating measures were built in.

New uncertainties (climate change) and the rejection of the EIA undermined project support, but at the same time opened the door to new alternatives, widening the range of options to include retention (G. White, 1974).

Not enough or too much detail?
Above it was noted that extensive consultation with stakeholders took place for the EIA. The Maaswerken Bureau went out of its way to answer to each and every question raised. No matter how far-fetched the objection, the experts were called in to win the argument.

> 'In the consultations with the public, there was this man, we call him Mr Fear-all, who started this thing about malaria. That makes the press. We contacted a health expert and it emerged you need a level of salinity [in water] that's about ten times higher [than we have]. You have to counter that [objection] rationally.' (interview, project director)

While all involved were greatly impressed by the quantity and thoroughness of the information provided, the 'promotional' approach failed to convince all stakeholders of its impartiality. The data conveys the impression that the unease does not so much concern the promotional material as the wealth of information gathered. Two of my interviewees spontaneously brought up their amazement at the information *overload* brought in to justify the project, and importantly, the information overload upped the ante for any critical questions, which, it was easy to sense, would have to be of similar thoroughness inducing one municipality to hire a consultant for his expertise.
The Local Authority for Arcen and Velden felt bulldozed by information.[275]

> 'For each argument advanced by us you get three counterarguments from the public authorities. (Note that the Local Authority apparently does not see itself as 'the authorities', JW) If you want to make a good showing (*een vuist maken*) you will have to spend hundreds of thousands of guilders on research'. As a counterbalance to the 'enormous PR machine of Bureau Maaswerken bulldozing people with information the local authority hired Grontmij consultancy for 'objective research.'

Despite the wealth of information, some agrarian actors remained unconvinced by the information provided by the Maaswerken project organisation (interview, 2000). 'Wet damage' to farms as a result of the Maas project has been calculated at the level of regions, not by plot. To be able to claim damages, agrarians will of course need to know what the 'threat' to their plots amounts to', (*Limburger,* 8 June 1999). An independent consultant expressed surprise at this criticism in view of the vast amount of detailed information unearthed in the EIA report for the Zandmaas:

'I can hardly believe the farmers feel there is too little information (...) It went to the point of asking us to research vibration-sensitive archaeology: what happens [to archaeological finds] if you jack steel floodwalls into the ground (...) There are maps with probability densities (...) you're not even sure what's in there [=the earth]. That request had to be retracted' (interview, 2000)

During several of my interviews in 2000 a sense of pessimism and foreboding was notable. However, while painting doom scenarios, none of those interviewed actually doubted that the project would go ahead in some form. Sunk costs – economic, but also political commitments (reputation, legitimacy) are strong project-sustaining forces in the Netherlands.

However now that the EIA Commission and Comptroller had been assuaged, the troubles *really* started for the Maaswerken because of three legacies from the securitized time window:

- a scare over the 'bathtub effect' of *Maaskaden* (6.4.2)
- anti-trust litigation (6.5.2)
- a scandal over illegal discharge of polluted soil (6.5.3)

In 1999 and 2000, parliamentary questions were asked on safety[276], a sure sign of the issue's arrival in the national political arena. In 2001, disputes over competitive tendering and topsoil depositing caused expensive delays to the project and the environmentalists, gravellers and at one point the Province, threatened to pull out of the project[277]. Local groups and authorities devised a strategy and formed alliances with each other as well as external actors. It is this grassroots politicisation that I will now zoom in on.

6.4.2   1999-2001: POLITICISATION OF FLOOD RISK

Protection or peril? The issue of risk displacement
The safety and risk displacement issue was the first controversy to make the headlines in 1999. New calculations revealed that the river widening would not realize the safety standard, and would therefore be supplemented by higher *kaden*. But the *kaden*, it appeared, would change a high-incidence, low-consequence *material* risk into a low-incidence, high-consequence *physical* risk in some areas.

The Boertien Commission-II had already remarked on this consequence of *kaden* but felt necessity warranted them. The area protected by the *kaden* is like a bathtub (there is no spillway). Should the Maaskaden be overtopped in a 1:500 flood, there would be very little time for warning and evacuation and lives could be lost (van der Ven & van Dooren, 1997). This possibility unintentionally propels the project itself into quite a different security domain.

'Evacuation used to be done by vehicles when the water is still shallow, now you need boats. Which includes the cattle removal. And there's still barbed-wire fencing around the area' (resident, 2000).

'Should a *kade* fail, people could even be drowned who used to watch the water rise gradually'. (Maaswerken spokesman)[278]. 'It's the difference between ten soaked carpets and one drowned Limburg citizen' (interview, former RWS director, 2005).

When this hazard became public knowledge it caused a stir, leading to Parliamentary questions. The then Vice-Minister, Monique de Vries, admitted that the personal security of those in embanked areas may be endangered if timely evacuation is not realised[279].

Meanwhile an administrative debate went on in parallel about risk displacement across space rather than time: upstream-downstream equity at inter-provincial level. Due to the Maaswerken river intervention, a downstream rise of the water table in Brabant and Gelderland was predicted, necessitating additional retention, which would claim 10 to 20,000 ha to store 10 to 20 million m³ [280]. In 1999, Waterschap De Maaskant in Noord-Brabant felt the Maas works could render its remit more unsafe. During the execution of the works the trajectory Boxmeer to Ravenstein would be temporarily less secure. As there is a large gas hub at Ravenstein feeding large parts of Holland and Belgium, this situation might be important. The Waterschap therefore wanted the trajectory to be realised in the North-to-South direction rather than South to North. Brabant felt Limburg should solve its high-water nuisance problems within its own realm and even demanded a separate EIA for the retention basins in Brabant[281]. This debate dragged on until 2005, when Brabant was given EUR4.5 million to take measures to compensate for the consequences of the

Maaswerken[282]. Persistent local worries about project-induced damages in Limburg also resulted in a compensation deal in 2004.

6.4.3   2001: RENEGOTIATION

"At the end of the day, it is the inhabitants and users of the area themselves who should decide on the future of the Maas" from 'Groen voor Grind, een mooie ruil', 1994 Maaswerken promotional film.

Dutch political culture sets great store by inclusion and participation, and the project's management has aimed for a high degree of *consultation*. The 1995-1997 'securitised' episode had opened up a window for a high degree of co-operative informal *public participation* - and hence, of 'co-ownership' - which included taking lay knowledge on board. As a consequence of the all-inclusive strategy, few could claim their voices had not been heard. During the EIA, stakeholders were again consulted, although as mentioned their influence on the choice was limited. After the EIA in 1998, however, there was little doubt that local people would hardly be involved in project implementation.

In 1 July 1999 the project partners signed a protocol, and by mid-2000 the private parties[283] officially formed the consortium Grensmaas. It gradually became clear that the scope of the project was going to be less extensive than planned for. As a more cost-effective alternative to widening and deepening the Maas in combination with nature development, it was now proposed to raise the *kaden* at Roermond, Venlo and Gennep was now proposed as part of the Zandmaas.

The city of Venlo was particularly unhappy because the city would lose even more of its view on the Maas as a consequence of the raised *kade*. Its municipality dismissed a dam planned right on the high road of Blerick as 'unacceptable'[284] An alternative 'Maas corridor' plan, which Venlo developed with several municipalities, envisaged widening the river and nature development, complemented with removable *kaden*, for which Venlo would shoulder the bill of EUR 0.5 million. The Maaswerken however said it was simply too late in the day to amend the Maaswerken to include the corridor. In the end a compromise was worked out which, as first calculations showed, seem to bring an even better safety effect than anticipated.

The lack of information and consultation in the lead-up to 2001 no doubt heightened public frustration and indignation at the political, NGO and community committee level when the final Maaswerken plan was presented. The response was for people to 'participate' in the Longian sense (Long, 2002), on their own terms sometimes co-operatively (coming up with alternatives), sometimes antagonistically – by filing petitions and appeals organising press-friendly protests. This issue will be expounded in the next section.

Revolt after the January 2001 plan

The 1990 voluntary agreement between province and national government had laid down a cap of 35 million tonnes of gravel. That agreement had already been changed to 53 m t in 1996. But even that agreement turned out to be rather elastic. In July 2000 it transpired that the gravellers would be allowed to dig up 55m tonnes to fund the 1,000 ha of nature along the Common Maas.[285] This Scope 2000 plan combined the Combination Alternatives with elements from other alternatives. On the basis of the EIA, a Provisional Design (*Voorlopig Ontwerpplan*) was prepared, released in late 2000.

Yet, the political solution found in 2001 differed substantially from any of the alternatives under discussion. The gravel consortium gained substantially: it was foreseen 66 – 70mln tonnes of gravel would be dug from the Maas valley – double the annual nation-wide demand (van der Meulen *et al.,* 2006: 167). The gravel industry also got an extra 200 ha, increasing the hectarage of the works on 15 digging locations by a third (ANP 502001).

The farmers' organisation LLTB expressed anger about the loss of more agrarian soil due to the extra hectares set aside for digging and dredging. My Mook interviewee is not alone in feeling the order of priorities had been reversed: the green security project is there to legitimise gravel extraction, rather than the other way round. The Christian Democratic party, a consistent opponent to Maaswerken leading the 'digging holes' discourse, claiming it opened the door to 'unlimited' excavation CDA almost succeeded in vetoing the project in the Provincial Council, leading an ad-hoc coalition of the Limburg regionalists PNL, the senior citizens party OU 55+ and two parties of the left, GroenLinks and SP. By vetoing the digging in Schipperskerk, a parish of Born which had seen decades of gravel dredging, this meant a *de facto* veto on the Maaswerken, since there was no alternative location for the Schipperskerk site.

Nature organisations like Limburgs Landschap were unhappy that the nature development was greatly compromised[286] and the 2001 compromise was clearly a bridge too far even for the conservationist Grensmaas consortium member, Natuurmonumenten. After consulting with the Limburgse Milieufederatie and Staatsbosbeheer they stopped all co-operation on the plan in 2001 and threatened to sue.[287]

There were also successful local appeals against the trajectory of the *kaden* and two planned retention basins invited their fair share of resistance. On 25 June 2001 the Stichting tot Behoud Leefmilieu for Buggenum, Haelen, Born, and Nunheim filed a petition signed by 2700 citizens to the public consultation procedure of the Maaswerken project on the draft EIA and draft provincial plan, which was originally due for 2003. The Heel and Haelen group feared that the Maaswerken's retention basin would set a precedent for inevitable future gravelling in the area west of the Lateral Channel (built 1971). They feared excessive nuisance as well as tourists being scared off when the Koeweide harbour was used for transferring soil (*overslag*). On its initiative, Grontmij consultants were commissioned to research an alternative trajectory.[288]

Further resistance came from Meerssen against gravelling in Bunde/Geulle. Meerssen sent three urgent letters to Bureau Maaswerken, one also signed by neighbouring Maastricht, Stein, Sudderen and Echt. Maaswerken was willing to look for alternatives for Bunde but not for Geulle and Voulwames.[289]

Now Geulle has only 90 households, Voulwames 7. This small number did not deter citizens of Geulle and Voulwames to found an action committee, Stichting Leefbaar Geulle aan de Maas in March 2001 with a well-designed and informative web site. They felt their natural values in their areas will be 'sacrificed' for the Maaswerken,[290] Joining forces with other Maas organisations led to the foundation of the Samenwerkingsverband Organisaties en Bewoners Grensmaas (SOBG), which subsequently evolved into Bewoners Overleg Maas. BOM was a collective of local action committees from Eijsden up to Mook[291], to represent citizen and recreational interests in the Maas valley. BOM feels that the Maaswerken is first and foremost a project for extending employment opportunities for companies specialised in digging holes until 2015.

Another reason for joining forces was a report by the drinking water company that the Maaswerken plans would boost algae growth and as a consequence threaten drinking water. Dredging would release polluted particles from the river bed which would end up in its own reservoir at Heel[292].

Jan van Eechoud, a retired chartered accountant from the tiny parish of Voulwames, became the spokesman for BOM. He vowed to put up a good fight: 'I expect the province and gravellers will come to an agreement, subject to an act of God (*force majeure*). In a supreme example of closure discourse he adds: 'Maybe we can provide that *force majeure*.'[293] Van Eechoud is now regularly sparring with Victor Coenen, 'project environment manager' (stakeholder manager) for Maaswerken seconded from Utrecht.

The logic of a large project demands that once a project has been decided on, you have to start planning on ever smaller details. The local opposition to the project however, refused to argue with the project bureau on those details. While decision-makers are used to moving for closure at

the general level, so they can start making decisions on ever more detailed, next stages of the project, civil-society opponents keep returning to the main decision. Each vertical bend denotes a point of *closure* and move to a more detailed (funnelled) level of decision-making: (Fig. 6.5)[294]
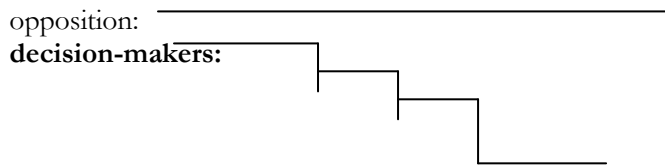
opposition:

decision-makers:

FIG. 6.5   *Difference between thinking between opposition and decision-makers.* Graphic representation (after Coonan,, Maaswerken stakeholder management consultant, lecture at Wageningen UR, February 2005).

In fact, even after the main decision-was taken, quite a few alternative plans for the Maas have been tabled in the water community itself, not just by civil-society actors. This suggests closure was not made with sufficient support base, so that local civil society keeps putting spanners in the wheel. This suggests that the original decision has not sufficiently been recognised as a political, wicked problem by its initiators which has the potential to haunt the decision-makers forever.

6.5   LIMBURG TAKES OVER (2001- 2005)

6.5.1   *BACK TO INFORMAL GOVERNANCE?*

In response to the backlash generated by the plan of early 2001, the province of Limburg spotted a window of opportunity to reclaim the project and moved with great speed.[295] In this phase, the approach to communication and participation also saw radical change. Between July and November 2001 a new plan was drawn up, this time in closer consultation with stakeholder. Three *Gebiedscommissies* for the Grensmaas area[296] held their meetings in an informal atmosphere and in this spirit did not even draw up minutes - the Maaswerken site has minutes only from 2 November 2001. All (organised) stakeholders were welcome and could directly influence the agenda. This degree of informality was to spell more trouble for the Maaswerken in 2005 (pers. comm.., consultant, 2005).

In a multi-stakeholder platform, not everybody can be expected to play along, though (Warner, 2006a). The *Vereniging Federatief Verband tegen Ontgrondingen* ('Anti-quarrying federation'), an environmental group in Born/Grevenbicht, had supported the 1998 plan for the Maaswerken, but sided against the new 2001 plan known as the *Basis* plan[297]. They felt games were being played with the Limburg citizens. While bilateral contacts continued, the Federation refused to sit on the Gebiedscommissie. Meanwhile, Lomm, the first targeted project site, were represented on the Gebiedscommissie, yet continued to fight the project in court in parallel to the multi-stakeholder negotiations.

The Basis plan targeted gravel deposits outside the floodplain and no *plassen* inside the area[298] and was rejected by several stakeholders, so that new negotiations were needed. The Final plan (*Eindplan*) was approved by the Limburg provincial authorities in December 2001. It allowed for less widening and put a gravel extraction limit at 50 million tonnes. Finally, implementation was planned in a much shorter time window. The Eindplan commanded broad support from PvdA, VVD, but also CDA and, eventually D66 (liberals of the left). PNL (regional party), the two left-wing parties, GroenLinks and SP, remained opposed, both because of what they saw as inordinate concessions to the gravel kings and because they feel that the Grensmasas required an international solution. To this, CDA and VVD raised the time argument: the longer the wait, the

more investment in nature will be replaced by investment in *kaden* and more gravelling will be needed to balance the books. In fact in 2003, CDA proposed scrapping the nature development element in the Maaswerken plan. With funds getting in ever direr straits, 'all cards should be placed on security'.[299]

6.5.2   THE ANTITRUST ISSUE

As noted, security decision-making excludes economic competition mechanisms, and invoking the complexity of the security project. Antitrust measures against consortia can only be avoided when the public partner can invoke an overriding 'higher interest'. Wolsink (2003) shows that the Dutch Public Works department, invoking this higher interest, has sought to avoid competitive tendering of infrastructural works by cutting up dikes into 5 km segments. Recent Dutch 'anti-NIMBY' (Not In My Backyard) legislation aims to speed up and, in terms of the present analysis, 'close' the decision-making process.

In the same spirit, the province of Limburg had expected to be allowed to carry out both parts of the Maaswerken with pre-formed consortia. In anticipation, the province had hired a law firm, Loyen & Loeff, to check whether competitive European tendering was needed. While the authorities had refused to disclose the outcome of the report[300], on the basis of the outcomes they must have considered themselves in the clear.

However, when an *ad-hoc* alliance invoked antitrust legislation in 2001, it forced the project consortium to justify itself in court. Both the municipality of Lomm and citizen platform Lomm Actief had appealed against the approval of a detention basin as part of the Maaswerken project[301]. Digging a retention basin was all right with them if it enhanced security, they felt, but not to line the pockets of the local gravel digging industry.[302] Together with Belgian gravellers who felt unduly excluded from tendering, Lomm Actief and individual members of other action committees started a European antitrust case.[303]

The European Directive (93/37/EEC) stipulated that all projects worth over NLG 5 million (EUR 2.25 mn) needed to open their tendering procedures to all European competitors. These rules are aimed at requiring minimum levels of transparency and establishing obligations to follow open procedures for awarding contracts, to facilitate fair competition between companies in all member states. These rules are also applicable to the tendering procedures for gravel extraction. The Maaswerken project leadership had filed an application for dispensation of antitrust rules with the Dutch antitrust regulator NMa in 1991. It argued that the complexity of the project warranted a consortium rather than open tendering. NMa begged to differ. The usual ecscape, splitting the works up into a great number of smaller works worth less than NLG 5 million, would make co-ordination so much more cumbersome[304].

The Dutch Department of Economic Affairs has tightened its antitrust enforcement such that it has already forced some extraction consortia to dissolve. In so doing, it complies with one of the cornerstones of the EU, the establishment of an open market, as vigorously pursued by the European Commissioner, the Dutch Liberal Frits Bolkestein.

However, the Dutch gravel extraction companies have tried to pre-empt the official procedures by buying land from provincial and local authorities in the gravel-rich parts of the Maas valley. By establishing property rights in the area, they avoid the risk of foreign gravel extraction companies getting the contract.

The Dutch government had granted the concession because the land is already owned by the excavators, who under Dutch law have the almost Maslowian-sounding right to 'self-realisation'. Under Dutch law, expropriation is not an option if the land-owner is able to carry out the desired work, and gravel extraction companies can arguably carry out river widening measures. A private party takes care of the entire project implementation, including obtaining the relevant permits[305]. However, the European Commission did not consider this an overriding argument.

The Commission objected to both the Grensmaas consortium[306], but also to the Zandmaas consortium DCM, composed of regional extractors.[307] DCM, which the Maaswerken wanted to grant a concession to sand suitable for mortar production, already owned most of the 90ha required. For the Dutch authorities, this meant that they were deprived of the chance to conclude a contract on better conditions.

Due to the successful mobilisation of the European competition authority, the process collapsed for over a year. The episode impelled D66 (liberals of the left), who had warned two years before about this problem, to urge the Maaswerken to prepare *alternatives* for the Grensmaas. The governor however felt that alternatives would give the European Commission the impression that Limburg had lost confidence in the Grensmaas plans.[308]

In the end, compromise was struck that only polluted topsoil management should be tendered, while the 50m tonnes of gravel excavation, as well as bridges and roads, could be carried out by the consortium. Parliamentary questions from D66 did not change the government's position. But while the deal settled the competition issue, but the disposal of the polluted topsoil however turned out to be yet another problem for the project.

6.5.3   FINDING, FILLING, FIXING EVER NEW HOLES – TOPSOIL AND BUDGET

Topsoil pollution was another legacy of the 'securitised' Maaskaden episode. Next to creating a 'loophole' around economic competition, the Delta plan for the Great Rivers had overruled the need for environmental auditing. The DGR allowed 'class 4 material', heavily contaminated soil which normally would have to be disposed of at a controlled site, to be used as topsoil for the Maaskaden. After the return to normal politics, however, there was commotion over the use of toxic topsoil in *kaden*, Rijkswaterstaat and three provinces had presented 'Active soil management' in 1998 as an innovative way of concentrating, isolating and displacing diffusely polluted sediments in the Maas floodplain, as well as the Rhine river branches.[309] 'Clay screens' (now known as topsoil depots) were to be manufactured from unsalable Maas topsoil, as a useful alternative to dumping them in gravel pits.

A scandal over the deposition of 180,000 m^3 of polluted soil dug up for broadening the river at Swalmen and Beesel in 2001 seriously compromised the project when the Purification Board (a type of Waterschap focusing on water quality) threatened legal action. The contract however freed the contractors of any responsibility, as national public agencies carrying out state law cannot be prosecuted for environmental offences, only investigated by parliament.[310] As a result, the Vice-Minister, Melanie Schultz, was formally liable for the damage, to her deep resentment.[311] The stored soil would need to be removed again at great cost-the costs of cleaning up the area are estimated at EUR 10-13 million. The provincial council chided the provincial administration, feeling there had been far too little control of the Maaswerken, especially when Cllr Vestjens failed to respond to any questions asked in the Provincial Council.[312]

Meanwhile spiralling project preparation costs had come under increasing attack as well.[313] The Maaswerken organisation has always claimed that the preparation costs had been comparatively low. The Provincial government on the other hand claimed very expensive consultancies were contracted and its bureau overstaffed – many functions appeared to be staffed by a provincial and by a Waterstaat officer (pers. comm. RWS, 2007). It transpired the project office had spent EUR140 million in preparation only: 80mln for the Zandmaas, 20mln for the Grensmaas, plus Limburg's 10mln investment in the preparation of the Eindplan[314].

The bureau was radically downsized[315] and Maaswerken Director Joost Huurman was banned from speaking in public[316] and the whole management team had to hand in their resignation. The new Maaswerken Director, L. Bijlsma, had to deal with the fallout over the topsoils. He predicted any new illegal practice coming to light for implementation of both projects to be the 'death stab'

for the project. This made the project organization extremely careful, even when environmental permission was granted in 2003 by Limburg and later reaffirmed by the Minister of Transport.

Pressures from the political sector were quite contradictory. After two high water-events in early 2002[317] and 2003, not all that comfortably withstood by the *kaden*, both politicians and activists called for speedy protection works. But the second half of 2003 saw petitions against the Grensmaas project to MPs (Helleman, 2005). The Maaswerken sat out the storms, as it waited to get the clean-up legally cleared – while critics claimed that they were in fact waiting for new legalisation that will ease the preconditions for managing polluted topsoil the Maaswerken way ('Active Soil Management').[318] The waiting however was not in vain – in 2005 word got out that according to European rules, lakes filled with topsoil are in fact waste dumps which need to be totally isolated and monitored. The topsoil issue had meanwhile been taken up to the Council of State.[319] The national government threatened to call off the whole project in case of a firm ruling. In that case a EUR100 million compensation claim on the national government could be expected from the Maaswerken consortium. Public officials started to consider a Maaaswerken-*lite*.

Moreover, a two-year standoff was to emerge in 2002 over the future Operation and Maintenance of the 40km stretch of *kaden* at Roermond, Venlo and Gennep/Bergen on the *Zandmaas*. A leaky water pipeline in Stein caused the dike along the Juliana (navigation) Channel at Stein to subside, requiring the evacuation of 500 people. The water boards refused to take such risks in future. Plus, who was going to foot the bill of an estimated EUR12 million? During the negotiations, emotions were apparently so strong that at one point the province threatened to pull out. An independent commission, the Commission-Blom, forged an agreement. All *kaden* will fall under the 1995 Flood Defence Act (*Wet op de Waterkeringen*), which means they are now a national responsibility. It also means they need to comply with the standards laid down in that act. The state will now have to carry the cost of replacing or resisting antiquated pipelines to ensure proper dike functioning.[320]

6.5.4   2002: NEW GAPS IN FLOOD DEFENCE

In addition to the shadow of the past, new information and legislation presented new hurdles for the Maaswerken project. Dark clouds gathered again when it transpired that the projected level of Maas protection was unlikely to be realised if you took climate scenarios were taken into account. RWS admitted in 2002 that both 1:50 for the *kaden* and 1: 250 for the undiked Maas might not be attained, and that it had started the Integrated Maas Exploration (Imtegrale Maas Verkenningen), to look beyond 2015 for a 4600 m³/s discharge (Wesselink, 2007). To realise this ambitious goal, the co-operation of the Belgians would be badly needed (see also BOX 6.1F). These explorations however were initially kept under wraps, as news about these explorations could be interpreted as the Maaswerken bureau not having great faith in its own project.

The standards issue was relatively new for Limburg. In 1996 Dolfing could still note that in the *reglement GS*, a legal document for the provincial governors, there was no stated acceptable risk floor, that is, no desired level of protection (Dolfing, 1996b). RWS used an informal standard for the Maas, but this is in terms of discharge: originally 3800m³/s, but lowered in the early '90s to 3000. After the 1995 flood, the emergency *kaden* to be completed by 2002, were intended to meet a 1: 50 standard.

Under the Flood Defence Act 1996, 1:250 became a requirement within the *diked* areas in Limburg. The widened Maas channel, together with the recently erected *kaden* were deemed sufficient to guarantee dry feet on a 250-year basis – though legally the undiked areas did not fall within this protection level.[321]

Even the adequacy of this normative standard of protection was already in dispute: Mook Local Authority felt 1 in 250 to be unacceptably low[322]. Mook is situated in North-Limburg at the

narrowest bottleneck. Any flood event has especially serious consequences for its Middelaar parish, which may find itself isolated. But it transpired that not all areas in Central Limburg were going to meet that 1 in 250 standard. The several redesigns made in the course of the project eroded the protection level in several places, both urban and non-urban[323].

BOX 6.1: Maaswerken: How about the Belgians?

It is notable how the Maaswerken project preferred not to rely on Belgian co-operation, despite the fact that the Grensmaas is a natural border river between Holland and Belgium. The *Thalweg* shifts autonomously as a result of the interventions in the Maas (Wetenschapswinkel reports). Despite an expected net loss to the country, the issue of *territorial integrity* due to the now highly variable *Thalweg* so far has not been a diplomatic (security) issue to the Dutch Foreign Office.

However, the border issue has brought all kinds of practical and political issues.

1.   The Belgians are not always mirroring the natural river bank approach on their side of the river or working by different time frames[324]. This can have considerable effects on bank operation on the Dutch side.

2.   Dutch interventions easily have an impact across the border. Upstream effects are always possible as water levels are pushed up because of the intervention. The *kaden* around Roosteren (NL) will increase flood risk at Maaseik [Belgian] side. It was agreed that the Maas would be widened on the Dutch side near Roosteren.[325] The Dutch government made itself responsible for any change in groundwater levels in Belgium when the Belgians called on the Habitat directive (Helleman, 2005, Maaswerken 2005).

3.   The Maaswerken were not built to accommodate 3000 m³/s, for that, similar measures would be needed on the Belgian side (Teisman 1995). The integrated Maas Explorations (IVM), started in 2001 to explore the period after 2015, are premised on the idea that Belgium and France need to do their bit.[326]

4.   Linkage diplomacy however could prove a major stumbling block. The Maas is a diplomatic, high-politics issue through political linkage politics with other Belgian pet projects. A diplomatic stalemate could have set back the project back by years.[327]

6.5.5   2005 – A VIABLE PLAN AT LAST?

On 23 June 2005, the project finally started, now with a projected cost of EUR 473 million, out of which 100 will be raised privately for digging two retention basins under 'self-realisation' rules[328]. On 1 July the POL (the Provincial Plan for Limburg) was approved by the provincial authority. The way was finally cleared for the Maaswerken project.

However the opponents do not let off. BOM took the case to court to try and quash the decision. It was unconvinced by the need for nature development.[329] Aren't grazing cows as good for maintaining the lovely Limburg landscape as the Scottish wild cattle the environmentalists wanted to import? LNC (Landscape, Natural and Cultural) values[330] have strong links with people's sense of cultural identity, so that any new project perhaps predictably mobilised opponents using the discourse of rape and pillage when the memory of acute flooding wore out. While in 2006 the Council of State defeated all complaints so that the project could go ahead, the Federatief Verband Tegen Ontgrondingen demanded to stop the Maaswerken in light of pollution of the river bed. This was rejected in 2007. But individual protests from residents who find the *kaden* going right through their back garden bring more delays, so that the new 2008 deadline for closing the gaps in Limburg's flood defence again is unlikely to be met[331].

6.6   CONCLUSION

In his famous economic theory, Lord John Meynard Keynes proposes that the problem in a recession economy is not scarcity of resources but an inhibition to consume. Consumption will lead to more capital accumulation, more employment and more prosperity. Since it doesn't matter what the consumption is for, governments can boost the economy by spend their money on anything - even digging holes in the ground and filling them up again – rather than saving it up for the future.

A strategy of finding, fixing and filling holes, in a literal and figurative sense, also comes to mind when contemplating the somewhat dispiriting history of the Maaswerken plan. The river scheme that sought to strike a happy balance between flood defence, natural values and sand and gravel extraction. Many local stakeholders however continued to see the project in a different light: a *carte blanche* lifeline for the regional gravel-dredging industry by another name. Local voices claim that the project sought to re-establish the legitimacy of gravel and sand excavation, which had got a bad reputation in Limburg.[332]

The formal project framing has been contested throughout the Maaswerken's history. Started as a nature development project, it turned out to require a discursive strategy of *securitisation* (framing an issue as a security issue) for its survival, changing the rationale for the project from a trade-off between nature creation and gravel extraction to a flood protection project with environmental and economic benefits. In essence, however, repeated politicisation pitted the two main problem frames – 'green security project' vs. 'quarrying project in disguise' against each other. This got worse in the course of time, since a contradictory set of project goals soon made the project run into financial difficulties even before it began, relying more and more on gravel digging to fill gaping financial holes. I tend to agree with Van der Meulen *et al.*'s (2006) analysis that the 'closed' nature of Maaswerken planning put the general public but also contractors in a reactive position. Nonetheless what they fail to address are the province's post-March 2001 efforts to do better on this count. In the disastrous year 2001, Limburg regained the lead in the Maaswerken, and can be credited with restoring confidence by closer consultation with stakeholders. Limburg could however not shake off its image of having sold out the province to gravel companies (Van Meurs, 1995). Even now the contract has finally been signed, it looks like this image will continue to haunt the Maaswerken project for years to come.

In the course of its history, security absolutes were thrown into the Maaswerken arena at almost every turn, and, interestingly from a theoretical perspective, from every 'Buzan security domain'. Securitisation became an option in the aftermath of two critical water events. The high-water events of 1993 and 1995 were a window of opportunity to carry though a number of emergency measures that would otherwise be difficult to realise. The problems of these fast-track decisions were only becoming apparent in due course: raising *kaden*, dumping polluted soils, forming a consortium without tendering, it all caught up on the project: 'normal politics' involved difficult questions on anti-trust, cost-effectiveness, environmental laws/EIA and participatory processes. Reframing the project as a security issue also reaffirmed the hegemonic position of Rijkswaterstaat, which had been on the decline in the 1980s and 1990s.

In many respects, however, the security momentum was lost early in the process, the Maaswerken became like any normal project and after one of its many crises, Limburg successfully reaffirmed its leading role in the project. Perhaps the shadow of the flood was not long enough to reap for the initiators the benefits of security decision-making. In the end, the project lost five years in overcoming a series of perhaps foreseeable crises.

Chapter 7: Public Participation in Emergency river storage in the Ooij polder – a bridge too far? [333]

7.1   INTRODUCTION

Should (and can) central government work with local stakeholders to prepare for extreme flood events? Can you plan together with citizens what to do in the event of a surprise attack? In other words, can the governance arrangement be rearranged such that a type of *co-production* of flood security between government and civil society is possible?

The international aid community is currently promoting stakeholder involvement in planning for and response to extreme events[334]. They see local participation as integral to integrated flood governance. Not only relief experts and public managers should be in charge of calamity management, the affected population should also be consulted and updated, to allow for better awareness and preparedness. This calls for much better coordination between the public sector, the aid relief sector (often private or NGO) and locals.

Like public security, the institutional set-up for disaster management[335] has long been geared to a top-down policy mode. As a matter of course, calamities are dealt with in a highly 'securitised' (Buzan *et al.,* 1998), non-inclusive, manner, legitimised by the need to protect existential values. The logic of disaster *relief* is one of quick, emergency response, so that there tends to be little time for democratic debate. Still, the brunt of coping with disaster is still borne by local citizens rather than external or national disaster management experts (Kirschenbaum, 2004). Community-based (neighbourhood) organisations have the network and specific local knowledge to improve effective communication and help. It would therefore seem prudent to consult and involve stakeholders in decision-making on the type and modality of protection they should get when the next disaster strikes. Contemporary insights in disaster management emphasise the need for disaster *preparedness* which can be far more inclusive.

The present chapter sketches the changing governance arrangement for riverine flood control, considering the extent of local stakeholder access to calamity decision-making when planning for national extreme events (crises) in the Netherlands.

After the floods of 1995, the Dutch government made a radical break, moving from 'vertical' (dikes) to 'horizontal' (space claims) security provision. This compelled the Ministry to involve itself in the area of spatial planning and negotiating with citizens and local authorities. Does the move away from dikes bring a 'de-securitised' mode of governance - a move from 'vertical' (top-down) to more 'horizontal' decision-making? A case study of emergency flood storage in a polder on the river Waal, mooted in 2000, illustrates a clash between 'securitised' and 'non-securitised' mindsets vis-à-vis floods, notably between those who propagate public consultation in flood management and those who do not. It is discussed whether desecuritisation also necessarily means the (re)politicisation of security governance.

Section 7.2 will sketch the policy context as a backdrop for issues of community involvement in the 'integrated flood security chain'. It shows how security governance in the Netherlands and internationally has changed to an approach that seeks greater stakeholder involvement and preparedness, although it is noted that flood management has been lagging in this respect. Section 7.3 then outlines the history of the decision-making on flood storage to see how the decision to flood the Ooij polder in extreme events was taken, legitimised and resisted. Special attention will be paid to how the decision-making process produced foreclosure of alternative frames, and how alternatives proposed after the polder selection process fared. Section 7.3.3

investigates how the planning process was politicised, triggering a (discursive) 'logic of war' on the part of its opponents, who advanced a counter-frame contesting the sense in the government's ´solution´. I will then assess to which extent this politicisation affected the involvement and 'voice' of the local community of flood security provision. This leads to an analysis what *kind* of civil-society involvement is meant when calls for participation are made (Section 7.4).

The case study is based on semi-structured interviews with river management experts, public officials and politicians at local, regional and national level, advisory committee members and local stakeholders, conducted between March 2005 and January 2006, together with Dik Roth of Wageningen University and Madelinde Winnubst of Radboud University Nijmegen. The study led to a book in Dutch (Roth, Warner and Winnubst 2006), which was presented on 30 July 2006 at Radboud University Nijmegen. The public presentations and discussion during this launching seminar served as additional inputs for this article. As a third source, documentary analysis of policy documents and discussion in the expert and public press underlies the analysis.

7.2   TOWARDS A DIFFERENT MODEL OF SECURITY GOVERNANCE – HOW ABOUT FLOODS?

In the Netherlands, calamity policy is a responsibility of the Home Office, while flood policy is the responsibility of the Public Works department and water (polder) boards. The Home Office has pushed for integrated disaster management, and acted as co-ordinator for integrated security policy (Lünneman, 2003). In 1993 it published a white paper, *Integrale veiligheidsrapportage (Integrated security report)* together with the Dutch departments of Social Security, Public Works Department, and Spatial Planning and Environment, calling for a more *integrated security policy*. 'Integrated' here means coherent, co-ordinated set of instruments and policy measures to reduce insecurity. This coherence is operationalised as a 'security chain' consisting of *pro-action, prevention, conscientization, preparation, response and relief/recovery.*

Who is to take care of this chain? The trend in national government of the last decade has been a steady *vermaatschappelijking* of risk and responsibility – decentralisation, but also the involvement of non-public actors. The *Raad voor Maatschappelijke Ontwikkelingen* (RMO), an authoritative advisory body to national government on social issues, has advocated a focus on the interaction between the public security provision system and self-organising capability of citizens. Local security, it is asserted, can only be provided if NGOs, companies and citizens assume responsibilities. While security provision is centrally planned and managed and implemented in a top-down manner, in practice, many other institutions need to be mobilised to respond to all kinds of threats to security, such as social workers and traffic regulators. These actors become rather more important if we extend the spectrum to earlier links in the security chain; hazard prevention, conscientization and preparedness. If wider civil society is well prepared for calamity, the response to an extreme event much more effective and the 'impact' of an extreme event will be reduced. As we shall see in Ch. 8, private insurers take on a key role in Britain, and it is now debated in the Netherlands what role the insurance sector can play here. An insurable risk means floods are no longer seen as an 'Act of God' but rather as an a risk people can influence by location and preventative measures.

The country's institutional set-up for flood management has historically presented an interesting hybrid of 'logic of war' (emergency politics) and 'logic of peace' (normal politics) security planning that might offer inroads for widening the actor base of the flood management regime (see Chapter 1). In the 13th century, long before there was any central government, farmers banded together to form the non-public, deliberative bodies, known as water (polder) boards, to pool resources for protection infrastructure, negotiating preferred drainage levels for groundwater and, more recently, guarantee water quality standards. The verb 'to polder' comes from the egalitarian process of bargaining and compromise in creating and managing polders.

The water boards, whose number ran in its thousands until quite recently, however competed with each other and not infrequently offloaded risk onto neighbouring boards creating hazardous situations. In 1798 the French occupying force established a national authority, Rijkswaterstaat, to ensure the security of Main River and coast. While the polder boards continued to share responsibility for dike operation and upkeep, Rijkswaterstaat came to dominate security management, especially after calamities.
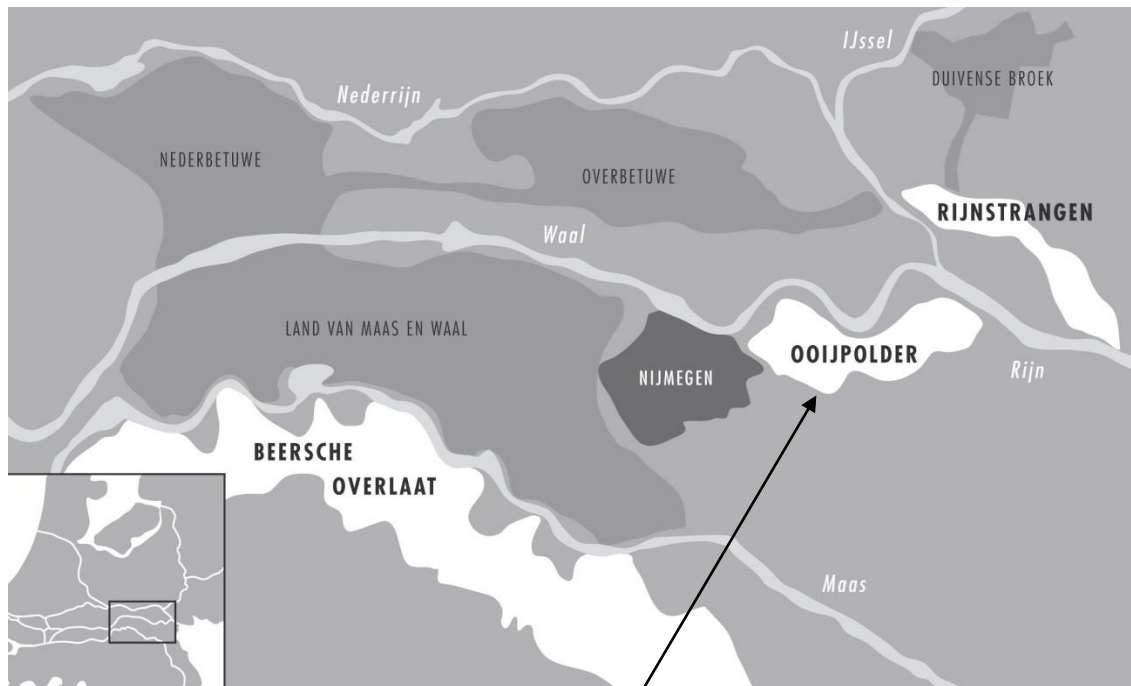

FIG. 7.1   Areas in white are proposed flood storage polders

FIG. 7.2   The Ooij polder

When flood security has become institutionalised in practices, there is no need to constantly make speech acts reminding the audience of the urgency of flood policy:. In the Netherlands,

conditioned by a perennial struggle with rivers and sea, even a relatively modest flood event is termed a 'disaster' and becomes *securitised* (Buzan *et al.,* 1998). A grateful nation proudly stood by as the Public Works department built the grand Delta Works after the 1953 sea flood. As Dicke (2001) explains, technological self-confidence, boosted by Dutch expertise in civil engineering, promoted a discourse of invulnerability. This confidence obviated the need to consult end users about flood management structures and decisions. As rivers were successfully contained, a political space for protests opened up only in the 1970s and 1980s, an alliance of environmentalists and local stakeholders who saw their dike houses and cultural landscape destroyed by dikes. In response, an era of greener engineering started (Disco, 2002).

The protection standard had only just been lowered from 16,000 to 15,000 m^3/s in 1993 when the high-water events of 1993 (Maas) and 1995 (flood on the Maas, near-flood on Waal and Rhine) woke the country up to the 'residual flood risk' the rivers could still pose.

Dire predictions of more frequent and intense climate change-induced extreme events dented the sense of invulnerability, a new 'Delta Plan', this time for the rivers Maas and Rhine, was rushed through in emergency legislation (Chapter 6). The standard was raised to 16,000 m^3/s, while the water sector advocated 18,000. However, this did not change the general mood in the Waterways Department that dikes cannot be raised forever. In 1995, research started on 'failure factors' other than overtopping dikes, and a new, 'horizontal' flood defence strategy was sought: finding space for the rivers rather than constraining them even further.

The final straw that changed calamity policy however was not a flood but a *drought* inducing an unexpected dike shift near the town of Wilnis in 2003 that changed the acting Vice Minister's (Melanie Schultz van Haegen) mind. She turned round to the view that the government cannot promise 100% security and that some calamity is inevitable (Schultz van Haegen, Cleveringa Lezing, 2003). In this she joins an internationally growing awareness amongst policy makers that all calamity cannot be averted (World Bank, 2000; UNISDR, 2002). The liberal politician envisaged a process in which multiple actors *jointly* take care of the security cycle from sensible planning and flood prevention to flood response and compensation.

Thus, the water department belatedly accepted the implication of the 1993 integrated security chain memorandum it had co-signed. The study by Rosenthal and ´t Hart (1998) shows flood response left much to be desired after the high-water events in 1993 and 1995. Since then, the Home Office's and Water Department's calamity policies became much more aligned. The decision-making circle on water management was widened to municipal planning departments, the housing department, traffic authorities, the fire brigade etc. An integrated view of (spatial) planning, warning and evacuation systems for flood management as contemplated in the Netherlands would also invite a more participatory mode of decision-making for disaster management.

Co-ordination is not an easy task even between national ministries, let alone between central and local governments. The Ministries of Spatial Planning and Economic Affairs and provincial and local government usually do not perceive flood safety as the primary decision criterion, tend to lean on the Public Works Department to take care of flood defence, and have seen the 'standstill principle' on floodplain development as unnecessarily restrictive. Once a site receives extra flood protection, the temptation to build right behind that defence is considerable (the ´control dilemma´, Immink, 2007). The moratorium on building in floodplains put in place in 1995, was rescinded in 2005. The new role for the Public Works Department as one player among others implicates it has to be more assertive/aggressive in negotiations, and less of a protector-patron.

Chastened by opposition to its dike reinforcement projects in the '80s and early 1990s, the Public Works Department sought cooperation with polder boards, provincial and local authorities, who were specifically asked to come up with ideas and initiative themselves for river management, which together were dubbed ´Room for the River´. National government also

decided not to put the new this plan under emergency planning or to fast-track the decision-making process under a straightforward 'public planning procedure' (*Rijksprojectenprocedure*), but decided to pursue a *PKB* (*Planologische Kern Beslissing*). PKB is a lengthy planning procedure with much greater scope for participation and redress. The attitude to lower/level authorities and citizens thus looked a lot like the 'logic-of-peace' mode of security governance.

The below case study describes an episode in which the modality of citizen involvement in decision-making on flood storage became a conflictive issue.

7.3   CONTROLLED FLOODING REVISITED

Given the 'disaster status' the 1993 and 1995 were given in the media, many non-regional people, including Prince William Alexander, now seem to believe that the Rhine and its branches flooded in Gelderland in those years[336]. But for many local people, the traumatic aspect of events was that of leaving the area in panic, when 200,000 people were evacuated in the Central Netherlands. Until 1993, the Netherlands had thought itself invulnerable, so there was no calamity plan. After the near-flood in winter 1993, however, the responsible water board had an evacuation plan prepared in 1994. The peak discharge in early 1995 was actually lower than the 1993 peak, but now that there was a plan, there was something that could be used, which made it compelling to use it.

While it was still unclear that a disaster was imminent, there was great pressure to do something (interview, RWS HID). Our interviews suggest that Nijmegen Mayor d'Hondt and Gelderland's Provincial Governor (*Commissaris der Koningin*) Terlouw considered allowing the Overbetuwe region to flood as it had already been abandoned by evacuated citizens, to save the downstream Alblasserwaard polder:

'… (T)he Alblasserwaard had not been evacuated while the (higher up) Bommelwaard had. When the Alblasserwaard dikes were on the verge of breaching, that request came up [from there]: please cut the dikes on the other side to save us. (…), I thought: in future that should not happen to us again. If you want to do something as radical as inundating a whole area with incredible levels of damage, you have to reflect on that, confer very well with the political sector and come well prepared to make a decision' (interview, former RWS director, 2005.[337]

The dikes were never cut, but the idea of inundation as a last-ditch escape was now on the agenda. After the 1995 event, the decision to widen rivers to make more space for flood waves had resulted in a series of proposed measures for bypasses, dike shifts and removals, and river restoration along the Rhine and Meuse: the *Room for the river* programme. This involves structural changes along the rivers Rhine, Waal, Merwede, IJssel and Maas to enhance river capacity to cope with 16,000 m3/s discharge on the Rhine, which is 3,500m^3/s more than the highest river discharge ever (in 1926 – the 1993 and 1995 peaks were lower). Creating more space for floodwater by widening them and digging flood bypasses would mean land take from and nuisance for private and civil-society actors.

As the deadline for the public presentation of the *Room for the River* plans neared, however, two key worries emerged inside the Ministry. First, at the close of the 1990s, flood experts started to worry about bigger floods. The 1994 Mississippi flood, and worrying climate change scenarios begged the question: What to do if an unusual flood peak hits the Netherlands? It was clear that even if all the Room for the River programme's measures were in place, this would not be able to cushion such an event. Experts started to project a 18,000m3/s peak scenario in light of climate change and upstream (German) works. Silva (2001) however claims that in 100 years' time, even a 19,000m^3/s peak will indeed be possible.

Second, *Room for the River* would generate an enormous amount of quarrying material (sand and clay), which the market might not be able to absorb (int., *Room for the River* manager 2005). Would it not be more sensible to concentrate intervention in a few rather than many locations?

Such considerations put the issue of planning for 'residual risk' of a 1 in 1250 year crisis event on the internal agenda of the Public Works Department. Thoughts turned to controlled flood storage – allowing excessive floodwater discharges to inundate 'calamity polders', which are sacrificed to save other areas.

This idea was presented in 2000 as the closing piece of a large-scale plan to widen rivers, *Room for the River*. It appears from interviews with the protagonists, that they had hoped that the actual decision on the specifics would be delayed until after further study. But they had not counted on the political agenda of their political boss, the Vice-Minister for Water Management.

It should be noted that there is plenty of historical precedent for controlled flooding (drainage) in low-population polders or polder compartments. Controlled flooding/drainage was common historical practice in the Netherlands all through the ages, including in the Ooij polder area under scrutiny here.

Overdiking (making your dike higher than your neighbours' dike) and 'public cuts' of a dike opposite yours to keep dry was usual. The Diefdijk, an old compartmentalization dike on the border between the provinces of South Holland and Gelderland, has been cut more than once by desperate farmers (De Boer, 2003). A difference, as Klijn and van der Most (2001) note, is that the Diefdijk has a spillway (*overlaat)* against unintentional flooding, while calamity polders are intentional safety valve. The Beerse Overlaat, the largest of the indicative calamity polders located in the Province of Noord Brabant, only lost its function as an emergency flood diversion tool by the middle of the 20th century.

The issue of where to direct excess flood water had been dormant for decades – as the last river floods had been in 1926 and 1947, there was little incentive for decision-making. But as we saw, it became pressing again in 1995. The word 'calamity polder'[338] was first mentioned in 1998 in the WL Delft study *De Rijn op Termijn* (Dijkman *et al.,* 1998) to denote a retention area between the dikes in downstream areas. Therefore, others, such as the national government, can step in to compensate them for their loss. After the commotion in 2000, the original coinage, 'calamity polder', was changed into 'emergency flood storage' (*noodoverloop*).

7.3.1   TO SECURITISE OR NOT TO SECURITISE THE FLOOD?

Is emergency flood storage a calamity or a normal event? This is a key question, as it informs the mode of decision-making to be employed – the logic of war employed in life-and-death planning or routine democratic decision-making.

Several interviewees, including the environmental spokesman, were nostalgic about the time when all involved were of a similar mind, the Delta Act for the Great Rivers of 1995 fast-tracked mode of decision-making was uncontroversially carried through paving the way for swift action. The office of the Dutch Institute of Civil Engineering is reportedly emblazoned with a parody of the Lord's Prayer: 'Give us our daily bread, and a flood every ten years'. Yet, as we have seen in the preceding Chapter, such periods of closure for the sake of 'national unity' fall apart as the memory of the flood fades. Thus, by 2000, the momentum propelled by the 1995 event had dwindled and Room for the River had to go through normal procedures.

Nevertheless, the emergency storage policy for extreme events added on to Room for the Rivers added a crisis element that made it a prime candidate for 'securitised' calamity planning. Reflecting on the public upheaval that the publication of controlled flooding in Gelderland was to generate, many at the Public Works Ministry wished they had kept the policy under their hats.

'Many of us thought: why didn't we just send a circular to responsible public officers in a plain brown envelope? (pers. comm., RWS policy staffer, 2002).

Had they done so, the affected inhabitants might never have heard about the calamity plan. However, the Vice-Minister for Water decided to publicise it. The Vice-Ministry for Water had only been created in 1998. Before that, the Minister of Transport was responsible for water management. Because Transport itself is a heavy portfolio, most Transport Ministers had been happy to leave water policy to their civil servants. One interviewee paraphrases his former boss, Transport Minister Annemarie Jorritsma, as saying: 'Your job [= that of civil servants] is to come up with the solutions, my job is to get it past the House of Commons' (Interview, former RWS director, 2005).

But now that the new post of Vice-Minister for Water had been created, the politician occupying it, Monique de Vries, felt she needed to put herself and her policy on the map. As her policy adviser at the time puts it, there is a 'direct relationship between the column inches in the press and political support for one's policy in the House of Commons' (policy aide, 2006). Little leeway could be gained for effective water policy and convey a sense of urgency. Moreover as a non-water expert she found herself in an isolated position within the Ministry. What interviewees call an institutional 'clay screen' seemed to seal De Vries and her aides from the high-level public officers, who are seasoned, politically savvy water experts. The policy aide therefore advised her boss to 'make a noise' to get everyone's attention.

The Vice-Minister indeed decided to throw the cat among the pigeons. A choice moment for this was the presentation of the Room for the River policy document at Slot Loevestein castle on 29 February 2000. Many eyebrows were raised when the Room for the River document turned out to display maps of controlled flooding areas. Generally, decision-makers prefer vagueness, deciding the rough contours ('search areas') but leaving the actual designation of affected areas until later. Maps are so politically explosive because they concretise winners and losers, provoking people to oppose something to avert the worst. There was an uneasy precedent when in the province of Groningen, in the North of the country, 'search areas' for emergency rainwater storage were hashed on maps after a polder flooded with rainwater in 1998. Angry farmers occupied the Waterschapshuis to force a change of policy (pers. comm. former *Waterschap* staffer 2004). The politician's pragmatic senior policy officers had not dissuaded the policy when they realised she was going to involve controlled flooding in the Loevestein document[339]. Regional Public Works officers also claim the central office had also not bothered to inform the Arnhem branch of their Ministry (RWS interviewees).

7.3.2   *LEGITIMISING EMERGENCY FLOOD STORAGE*

After vice-Minister De Vries had gone on the national news and the following current affairs programme, *Netwerk*, the hoped-for 'panic' was generated all right but there was a political risk in surprising stakeholders. While the Vice-Minister was prepared to shock her colleagues at the Ministry, she expressed surprise at the backlash outside the circles of government.

The first wave of protest in 2000 was instigated by provincial authorities and well-established (corporatist) civil society organisations: the Chamber of Commerce, the Social Partners (i.e. employers and employees) of Gelderland, and farmers' unions. Immediately after they saw the indicative controlled flooding areas hashed areas on the map in the *Room for the River* document in 2000 they hired counter-expertise: a report from the same well respected engineering consultancy that had mooted the idea of controlled flooding in the first place, WL Delft. The consultants predictably reported that controlled flooding in itself is a sound idea, but not in the locations and modalities it was proposed now.

The Province of Gelderland was the first to question the underlying assumptions for emergency storage, notably the need to prepare for 18,000m³/s rather than 16,000. To support this doubt, the Province of Gelderland had a report carried out with North Rhine Westphalia state in Germany and, in due course, support from the Public Works Department. The report found that 15,500 m³/s could flow into Dutch territory in case of flooding in Germany. A highly theoretical Super wave would bring 16,500 m³/s. Only in case of no flooding in Germany whatsoever, that is, sky-high dikes in Germany, a maximum scenario of 18,700 m³/s would be possible. Given the implausibility of such high dikes, Gelderland continued to stick with 16,000 m³/s as a target for 'Room for the River' and remained opposed to emergency storage.

The Vice Minister however was determined to explain the emergency storage policy to the stakeholders. Her communication expert at the time is a great fan of Social Learning and advised a dialogue to develop shared meaning in a one-to-one relationship with the citizens. The Minister thus treated controlled flooding like any other Room for the River project rather than seeing the deliberate flooding of an inhabited area as a 'securitisable' crisis policy. The envisaged interaction with citizens however was soon thwarted by senior policy advisers as well as a hegemonic ministerial policy culture that discourages too much communication between minister and citizens, or indeed minister and public servants. When a first bus-ride across the 'backyards' was made, 'the coach soon filled with civil servants' (policy aide, 2006).

The Home Office meanwhile was not best pleased with the Water Vice Minister's unexpected move, either. An internal memorandum indicates it did not oppose controlled flooding as a way to deal with residual risk, but saw the issue rapidly becoming unfit for discussion (*Minuut,* 2002). It asked its Minister, Remkes, to demand an explanation in Cabinet meeting (int. Home Office, 2006). As a result, a commission was instated by Home Office and Water department in 2001, to be headed by veteran liberal senator David Luteijn, to research the necessity of the policy measure and indicate suitable areas. Other pressing issues for the commission were the operation of such polders, compensation for flood-induced damage, public support base.

The commission took a year, in which seven technical studies were carried out. The Commission could rely on an almost unlimited budget – the outlay eventually reached EUR 1 million.

Early Moves for Closure

True to Dutch style, the Commission's membership had been selected on a good spread between political affiliations. It drew both on Luteijn's own vast network and veterans of earlier water committees. Technical experts were thin on the ground in the commission and some interviewees note with surprise that key functions like the two project secretaries and technical liaison were relatively junior career bureaucrats. The commission therefore had to rely on the supporting technical expert group.

The Commission's president was quite clear on the assumptions with which he started his work. Crucially, he treated the '18,000 flood' and the need to do something about it as a given. He brooked no discussion. The exclusion of debate and alternatives is a core aspect of 'securitisation'. In his discussion of the Copenhagen School's concept of securitisation, M. Williams (2004) points out that visuals are as important as the written and spoken word in 'securitising' moves. Indeed, to impress the urgency of the task at hand on his fellow commissioners, Luteijn had a video animation shown prepared by RIZA Lelystad, representing a disastrous flood event. This video drove home to key members that something needed to be done. Thus, while others (notably professor Wybrand van Ellen) called for calm, taking a step back, doing nothing was not a viable option for the committee: 'if you do nothing, you will have to evacuate half a million citizens'.[340]

Luteijn's 'move for closure' was to lead to a clash between 'converts' and 'doubters' with his advisory group. Since 1995, research had been on the way into uncertainties in dikes,[341] showing that many more 'failure factors' than overtopping dikes play a role in flooding – piping, dike

systems interaction, and seven other factors (Silva, 2001). An official at Rijkswaterstaat Oost-Nederland recalls a furious row between those who accepted a degree of uncertainty and those who did not (interview, 2005). The mayor of Duiven, a town in the designated Rijnstrangen area, part of a ´focus group´ for the commission, likewise sought a hearing for the dissident view.

This debate however looked to be time-consuming, and Luteijn felt he had no time. Various interviewees describe Luteijn as an avuncular, 'quick and dirty, can-do' commission leader who delivers had not time for distracting uncertainties both in terms of rationale and of information uncertainties. Moreover, when the 'Purple' national governmental coalition (see Chapter 7) fell prematurely in early 2002, Luteijn decided to speed up the work to be able to present its report in time to set the agenda for the new Cabinet.

While the Vice-Minister's intention to interact with the polder came to nothing in 2000, Senator Luteijn certainly reached out to the region during the drafting of his report: he made three consultative rounds, organising consultation meetings with local government representatives, and 'intermediate organisations' of civil society – consumer associations, Chamber of Commerce, etc. The modality of participation however was decidedly of a 'controlled' nature. Dik Roth and I attended one such meeting in March 2002, and were struck by how late in the meeting any news was given on the imminent selection in light of the delicacy of the issue (see BOX 7.1). Our Wageningen MSc student group was stopped from doing interviews in areas that were under consideration for selection.

The most notable feature of the consultation process however was that the concerned 'grassroots actors' themselves were not consulted about the designation of their polder for floodwater storage. When interviewed by us in 2005, the Commission's Chairman Luteijn declared security is simply 'too important' to extend discussion to citizen stakeholders. All this suggests controlled, 'crisis-mode' decision-making.

BOX 7.1   *Attending a Luteijn Commission meeting, March 2002.*

Dik Roth of Wageningen University and I attended one of the Luteijn stakeholder meetings in a conference facility at Vredenburg Utrecht in March 2002. After a report on social aspects of flooding was presented (Slootweg and van Schooten, 2002) several participants asked for more clarity on the selection of the areas for controlled flooding, as they had already heard through the grapevine that the Commission would advise positively on controlled flooding. The commission presented its calculations of controlled vs. non-controlled flooding. Controlled flooding would mean the embankment of one population concentration at most. There were questions from the floor on the underlying reasoning: why these and not the other, smaller villages in the Ooij? What will happen to non-bunded areas? None of these questions were answered; the reply can be summarised as 'you have to start somewhere'. An environmental NGO interviewee (interviewed in 2005) relates that a subsequent question-and-answer session was held when the report had already been printed. This reinforced the impression of a 'selling' rather than a 'consultative' approach to decision-making.

Site Selection: Lack of Space

The amount of water detained determines the amount of space needed to deal with top-end flood scenarios. Given the Netherlands' considerable population density (452 per km^2), it is not so easy to free up space for floodwater storage. The selection process reflects this quest for space.

In the Loevestein report, the indicative sites for flood storage were both up- and downstream. WL Delft's counter-report criticised the preliminary site selection, preferring a focus on the downstream Alblasserwaard and nearby polders on the lower part of the Rhine. But as the

Luteijn commission set to work, the lower Rhine disappeared from view, as the impact of flood storage in those polders was held to be much less than upstream areas. As the Ooijpolder, a 3300 ha area, came into view as a candidate for floodwater storage, the Luteijn commission at first considered the whole of the Ooij and Duffelt for storage, which includes a German part, the Düffel. Historically Kekerdom and Leuth have long belonged to Germany, Dutch and German farming organisations and businesses have social and commercial ties, and attend each other's annual meetings and New Year's functions. Gelderland meets with Nordrhein-Westfalen and riverine municipalities meet twice a year. For long-time residents, the binational space appears to be one unpartitioned reality (interviews 2005).

Like the Ooij's inhabitants, the river does not respect boundaries either so that inundation would also affect German territory. To explain the policy and assuage German fears, Public Works officers made well-appreciated visits to visited municipalities in Germany like Emmerich and Kleve – in fact rather more so than talking to their Dutch counterparts in the Ooij (interview, policy advisor, RWS Oost, 2005).

It appears that the integration of land, water and society required for Integrated Water Management (Mitchell, 1998, GWP, 2000) fell afoul of a classical clash between hydrological and administrative boundaries. Inundating German territory (Duffelt) would thus have international consequences, which would present a foreign-policy issue the government did not want to burn its fingers on. RWS could not or would not take measures that had transboundary effects. But it did not appear feasible to flood the Ooij only. Isolating German territory from impacts of actual Dutch controlled flooding[342] would require a dike of 8, 9 metres' height running from the German-Dutch border up to Nijmegen to retain the water in case of controlled flooding event (Van Ellen q. in *Volkskrant,* 2003)[343]. In 2002 the German state of North Rhine Westphalia announced it would build a dike itself if controlled flooding were to go ahead.

By concentrating on the Dutch side, the commission lost a sizeable chunk of the projected inundation capacity. The three areas that were finally selected (Ooij, Rijnstrangen and Beerse Overlaat - 90, 115 and 365 million m^3 respectively) cannot nearly handle as much water as originally intended.

7.3.3   LOCAL RESPONSE TO THE COMMISSION'S REPORT

The Ooij's population is about 13,000, 10,000 of whom are concentrated in the town of Ubbergen en Beek. Many dwellers have lived in the polder for generations, but the region has also seen a steady trickle of 'imported' residents from the Western conurbation and elsewhere, looking for peace and quiet in a rollicking landscape. These newcomers, it appears from the interviews, were not as prone to bowing to authority as the older residents were. The region has a history of activism against spatial plans. First in the 1970s, it resisted a plan to widen the bottleneck at Lent, a parish where the river Waal narrows from 1 km across to 450 m. This widening plan, to make space for shipping, was to eat into the polder. Then in the 1980s, a local platform resisted planned dike reinforcement.

However, the fact that the action committee was formed over 2½ years after the first public announcement of emergency flood storage plans and 6 months after the publication of Luteijn's report, indicates how much time it took for civil opposition to the plans to develop. Two out of three eventually selected areas put up scant resistance, while in the Ooij polder, resistance initially consisted of isolated protests. When it became clear in 2001 that the Luteijn Commission had a preference for the Ooij, the mayor of Ubbergen protested, but citizens appeared to wait and see. This changed when the local Rabobank, which had a very strong local client base, stepped in. It issued an alarmed leaflet in May 2002, when the Luteijn report came out. In September, Nout van der Ven, a Desktop Publishing expert from the region, mobilised a small group which started to meet ´chaotically´ in a local function room (local citizen, quoted in Roth, Warner and

Winnubst, 2006: 118). Farmers had also caught wind of developments and placed straw dolls with slogans in high-visibility locations. Awareness had thus been raised, but without a clearly defined organisational focus, when the Rabobank organised their thematic annual meeting for its members in November, with David Luteijn (a member of the Rabobank's national board) as its special guest speaker.

Once the report was finalised, Luteijn was keen to present it in the region. He felt he had a strong hand, being able to give the region far-reaching guarantees for compensation of damage from emergency storage. He also came with a catchy metaphor; the calamity polders were like an 'air bag' to cushion the impact of a crash (Luteijn Commission, 2002).

Luteijn's presentation proved a real eye opener for the Ooij. After a tumultuous question-and-answer session speaker and audience clearly came away with a different assessment. While Luteijn claimed in 2005 that the region was basically 'won over' (interview), Ooij citizens were so outraged about the plan that they decided to form an action platform. Unlike many other protest groups against water intervention, the protest became driven by well to do 'bourgeois' townspeople rather than farmer-led.

Water disasters are normally treated as an external security risk that you cannot influence. When a government itself decides to drain floodwater into a low-population polder, the external risk fully becomes an *internal* risk to the flood-affected citizens, i.e. a risk someone (the government) is responsible and accountable for. This brings a tension between the local and national interest.

Citizens of the Ooij polder did not fundamentally dispute that their area could be flooded in an extreme event to save others. 'We don't lie awake worrying that one day things may go wrong'. As the first area to be affected by a flood wave once the Rhine has crossed the German-Dutch border, the Ooij polder dwellers have more or less accepted that risk (int. HWP spokesman, 2005). But they doubt the ethics of that decision. After all, in any (hydro-) social contract (Turton and Meissner, 2000; Warner, 2000, 2004), a government should protect its citizens, not put them at risk of drowning.

Prime target for the campaign was the new Vice-Minister, Melanie Schultz van Haegen. Upon taking office in 2001, the liberal politician had been led to believe by Luteijn and her policy advisors that the mood was right clear for controlled flooding. In taking office, Water DG Bert Keijts presented her with three options: shelve, look for a support base, or take action. The Vice Minister opted for taking action (interview, retired policy adviser, 2006). The Platform concluded she 'didn't get it' and saw her decision as a 'declaration of war' (Sanders quoted in *De Volkskrant,* 2003). From now on, the Vice-Minister was the 'enemy' and the platforms started looking for allies (int. HWP spokesman, 2005). In terms of our analytical framework, the polder was effectively 'counter-securitised'.

While the camps were barely talking to each other, they sought to align others for their cause. The platform formed three working groups – communication, legal and technical. Inspired by a fundamental belief that floodwater should be quickly discharged rather than detained in a densely populated area, Professor Wybrand van Ellen, a well-known retired Delft engineer who lived close to the area, made calculations for the technical group questioning the assumptions of the Luteijn commission, such as the 18,000 flood scenario. In so doing, he opened up the government's flood management frame. He found likely (the Province of Gelderland) but also unlikely allies for this in the engineering community: the Platform caught wind of a critical internal technical study underlying the Luteijn Commission's report completed in August 2003 by two well-respected consultancies, WL Delft and HKV Lijn in Water. The carefully worded report did not dispute the merits of controlled flooding, but claimed the plan for the Ooij was uneconomic and ineffective – or as one of the consultants later summarised it, ´weird´.[344] After the legal working group made a call on the *Wet Openbaarheid Bestuur* (Freedom of Information

Act) on the part of the Hoogwaterplatform, the existence of the requested report was first denied, then it was 'mislaid' and the wrong document sent (interview, platform spokesman, 2005). Another critical advisory report was leaked to the *Trouw* newspaper in 2002[345].

Meanwhile the communication group produced leaflets, a regular newsletter and a sophisticated, widely read web site with links to all relevant reports (www.hoogwaterplatform.nl). It organised media exposure and a powerful political lobby. At national level, the group bussed parliamentarians around the region to show the consequences of river storage in the polder. Local business made small donations to fund these activities.

Not only the Platform made good use of the media, Ubbergen en Beek mayor Wilbers preceded the citizen platform in protesting the measure. During an interview platform leaders asserted he tried to steal their limelight. Together with nine other local authorities, five Dutch and four German, Ubbergen commissioned counter-expertise from Delft sociologist Enne de Boer. De Boer had already made a social impact assessment for the Water Department's *Bouwdienst* in 2000 and concluded it would be a hard sell. His 2003 report ridiculed the ´air bag´ metaphors and the 18,000m³/s scenario, claiming that the German river banks will flood long before the river reaches the Low Countries since current German efforts aim to control flooding at 14,600 m³/s. In sum, the protests had become an (international) public-private-NGO partnership (see Table 7.1).

TABLE 7.1   *Resistance to controlled flood storage: actors and their strategies*

Time	Stakeholder group	Strategy
March 2000, 2003	- Province, Social partners, - KAN	Counterexpertise
2002	Mayors	Counterexpertise, media
Nov. 2002	- Rabo Bank - Citizen Platform	Counterexpertise, lobbying, media and information campaign
2003	National Political parties	Parliamentarian motion
2001, 2003	- Water experts in government - Experts and consultants	Counterexpertise, pressure

Range of alternatives: Controlled or uncontrolled flooding?

Now that the solution frame was opened, what options for the Ooij were in the picture? The human agency aspect in controlled storage brought an operational uncertainty issue: when to open the floodgates. Experience in 1993 and 1995 suggests that when in doubt, mayors and engineers tend to make a decision, even if a premature one, rather than waiting and seeing (interview retired RWS officer, 2005; van Meurs, 1995). But given the limited storage capacity of Dutch polders, opening them too early would mean missing out on any spare storage capacity for a second flood peak.

What about *un*controlled flood storage? Neither flood experts nor politicians liked this variety, but environmental groups such as the Gelderland Environmental Federation (GMF) saw new environmental opportunities from allowing the water to come when it comes. However as the Ooijpolder became a more serious option, the local chapter started to feel uneasy about public support and the GMF dropped its support such that discussion of the option became taboo (Martinet, pers. comm., 2005). The Ooij platform's technical experts found that embanking towns like Kekerdom might raise the groundwater level such that the town would flood anyway badly affecting residences for months. Thus, while economic damage would be significantly reduced (from EUR650 million to 120mln in the Ooij, see Commissie Noodoverloopgebieden, 2002: 18), controlled flood storage would mean months of nuisance after the polder evacuees returned to their homes. A highly effective PR visual deployed against emergency flooding was a blown-up photo mock-up of Kekerdom, 4m under water. This striking visual made 'controlled

flooding' seem barely preferable to 'uncontrolled flooding' – putting in bunds around the inhabited areas would make it more rather than less dangerous, displacing the risk.

While the Ooij platform did not bring radically different alternatives to the table, at least two other actors did in 2003. The Knooppunt Arnhem-Nijmegen (KAN), a regional collaborative alliance to promote the region between Arnhem and Nijmegen commissioned a report from Haskoning consultants in Nijmegen to research eight options for water management. The consultants found for a chain of very small controlled flooding areas, similar to an initiative developed at the time in neighbouring North Rhine Westphalia. That same year the national forest conservation agency, Staatsbosbeheer, published its alternative in the report ´Lonkend Rivierenland´ ('*Enticing fluvial area*', Staatsbosbeheer, 2003) proposing to dig a whole new bypass (green river) through the area. Neither report generated much interest.

Apotheosis

Meanwhile, the Commission and water department sought to sell the intervention to its intended audience. An internal memo (´Minuut´) from 2002 shows that the Public Works department's communication desk categorised stakeholders view as ´friendly´, ´neutral´ and ´hostile´ and strategised to convert the fence sitters. But as the Vice-Minister enjoyed maternity leave in 2003, the HWP's political lobbying effort at national level began to reap success: a political deal saw the two largest parliamentary parties (Labour and the Christian Democrats) acting in tandem to move the money reserved for controlled flooding to supplement the budget for *Room for the River* which expected a shortfall. Back from her leave, Vice-Minister Schultz concluded the race was lost and in April, well before the scheduled date, she presented the Cabinet's position that emergency flooding would be shelved, reduced to an option among others, due to cost ineffectiveness and lack of sufficient public support.

In September that year the current affairs TV programme, *Netwerk*, suggested that the case might be reopened. Vice-Minister was said to pressure the Nijmegen city authorities to agree with a controversial plan to widen the bottleneck at the north bank (at Lent), which was linked with a EUR80 -90 million national contribution to a new bridge over the river Waal. If this deal was off due to protest from Lent dwellers, reporters claimed, she would table the flood storage plans for the Ooij polder again. When this made the press, the Vice-Minister strenuously denied this textbook example of linkage politics, and had a bunch of flowers sent by courier to the platform chairman with a message that the controlled storage option was off the cards.

7.4   DISCUSSION: FOUR TYPES OF PARTICIPATION

This chapter has explored a case of policy making for extreme flood events. The interviews suggest that in view of the hitherto lacklustre profile of her newly created office, Water Vice Minister De Vries decided, and was not discouraged by her public officers, to take the 'political road' to find a legitimacy base for a policy that was not yet in evidence within the bureaucracy. Her initial treatment of the policy in a *non-securitised* mode however was thwarted by that same bureaucracy. The Luteijn Commission, instated to defuse conflict and find a public support base, broadened the debate to intermediary organisations, but excluded affected citizens with a securitisation rationale - national security was too important to involve citizens – thus stirring rather than dousing the flames in the region.

The Commission opted for early closure on controversial issues, and a promotional ('selling') policy vis-à-vis stakeholders once the report was finished. The upshot was that a polder whose citizens were at root understanding of its flood risk turned against the policy. Only when the platform failed to get a hearing and experts sympathetic with the Ooij inhabitants' case found many technical, legal and economic flaws with the plan to flood the Ooij, did controlled flooding

really become a bridge too far for the polder people. The stakeholders in the area only really started to rebel when their technical advisors found that the plan was not sound.

Participatory security matrix

The above case study has highlighted different modes of dealing with calamity. The emergency flood storage faced decision-makers with a problem: are we to treat this in a closed, *security* mode or in an open, routine-planning mode? The ministerial flood managers' tendency was the former, but the Vice-Minister's initiative opened up the arena a desire to *dialogue* with stakeholders. The upshot was a mix of both: behind-closed-doors expert deliberation plus a highly Dutch form of consultation of non-public stakeholders (civil-society and private sector and local level authority leaders), which however bypassed the policy-affected local population. Excluded stakeholders then decided on a counterattack, *politicising* the issue such that it became a parliamentary debate.

The case study suggests a greater range of modalities for (non)-participation than 'wartime' or 'peacetime' decision-making, with different degrees of actor involvement in considering policy alternatives. Fig. 7.3, compiled and systematised by the author on the basis of various strands of literature, applies the modalities found to the present case study; arrows and numbers tracing the dispute's development through time. Let's take a look at each quadrant separately.

Until the past few decades, the standard response has been a 'securitised' crisis mode of high-level experts and managers in the security services – with slight exaggeration: while young and able-bodied soldiers took care of war, retired army and policemen took care of calamity response (Pearce, 2003). In principle, this modality could involve local people in calamity management without abandoning the 'logic of total war'. This 'mass emergency' logic however reduces citizens to not much more than soldiers. The active role of the citizen as a part of the state's security apparatus would mean a return to ancient Greece, where 'particular active responsibilities such as jury duty, or even the hoplite armies and the notion of 'warrior citizens', made citizenship as much about responsibility as entitlement´ (Muller, 2004).

Such mass mobilisation is unlikely in the Netherlands, but another aspect of normal emergency planning is reminiscent of planning for war: secrecy, information on a need-to-know basis. Sending mayors a 'plain brown envelope' with instructions for emergency flooding (interview, RWS officer, 2004) while keeping citizens in the dark would have been standard procedure in the past and therefore is indicated with the number zero in Fig. 7.3 below.

An increasingly practiced way for governments is no longer to treat risk and calamity management like a war but like a normal challenge we can handle rationally. A 'managerial' approach to risk (Aradau 2001) 'defines down' threats that were previously constructed as extraordinary as normal and routine risks, unless they become 'disruptive of the social fabric'. This 'desecuritised' approach is more intricate, as the enemy (the river) is not external, it is now our friend, but needs to be kept in line. In this modality security governance becomes a public-private co-production. This 'participatory desecuritisation' however does not preclude a depoliticised handling. The road chosen by the Luteijn Commission is most reminiscent of this 'managerial' approach: civil-society organisations were consulted in controlled focus-groups without veto power, but affected citizens were not.

In the wake of a flood wave, the analysis of the problem and the solution may be uncontroversial and a 'securitised' or 'managerial' solution may be accepted. But in the Ooij case, the flood had been more than 5 year ago, and both the analysis of the problem and the values leading to a solution turned out to be contested, not only with local stakeholder but also within the expert community. 'Wicked´ (intractable) problems', where both values and facts are disputed or uncertain, cannot be solved by a political process only. They may require a mix of politics and technocracy (post-normal science). For such problems Hisschemöller and Hoppe (1998) recommend undertaking a signalling and social learning process first.

		Agreement on values high…………….…………..low	
		Threat not open to dispute	Threat open to dispute
Agreement on facts	High . .	Securitisation (foreclosing debate by speech act) *(0)* *mayor emergency chief; need-to-know top-down instruction for extreme event*	Open conflict, internalising antagonisms (power of argument) *open contest on security policy; mayors side with CBO* *3*
	Low	Routinisation/Managerialism (foreclosing debate by risk management) *2* *consultation with intermediate organisations and local authorities, not with citizens*	Dialogue: (power of *better* argument) *1* *joint learning with local stakeholders*

FIG 7.3   *How to counter calamity in a participatory way? A 'participatory security governance' matrix.* Matrix axes based on Hisschemöller and Hoppe (1998). Arrows denote chronological development of Ooij episode.

What Vice-Minister De Vries's aide professed to have in mind (as related during the Nijmegen book presentation session) was indeed a form of deliberative democracy. This approach aims to consult with stakeholders to enable social learning to arrive at a policy consensus on the basis of argumentation. A dialogue does not see actors as mere rational individualists, but as social beings who are aware of the interdependence with regard to the problem in hand, and are willing to deliberate for collective action (see also Röling and Woodhill, 2001). Deliberative democracy thus enables a *dialogue* on security itself. While a security speech act is a one-shot activity based on a fixed interest definition, a dialogue, in which participants' subject positions and preferences can change due to force of argument, which in turn could lead to different process outcomes (Sjursen, 2004).

In a multi-stakeholder platform (MSP) it is not the majority-plus-one that decides, but a process of consensus building between representatives of pre-identified identities (Dryzek, 2002). These identities may be 'public', 'private' and 'civil society' but also based on economic interests (farmers, industry, homeowners) or linguistic, ethnic or religious affiliations (Warner and Simpungwe, 2003). A multi-stakeholder platform for flood preparedness (Warner, Waalewijn and Hilhorst, 2002) does not solve problems, but can promote flood awareness, increase social capital and promote joint learning. While I have claimed elsewhere (Warner, 2006) that a tendency for 'Habermasians' (e.g. Hemmati 2002) to see an opposition between MSPs and politics is often spurious, there is still a ´residual risk´ that MSPs lead to depoliticisation, to 'taming' both the issue and stakeholders (Currie Alder, 2007). Depoliticised handling of security means conflicts remain unaddressed and key stakeholders unincluded. A consensus-oriented dialogue can kill the 'vibrant clash of democratic political positions' required for a 'well functioning democracy (Mouffe, 2000).

The matrix makes it possible to trace chronologically the security governance choices made for extreme events. Seeking the front pages to boost her political profile, Vice-Minister De Vries decided to forego the 'plain brown envelope' option, that is, security policy behind closed doors, assigned the top left corner as option (*0*). The stakeholder dialogue for joint learning she appeared to favour (Phase *1* in the diagram) however was swiftly prevented by her department and replaced by a commission which allowed a limited, controlled form of societal consultation to 'sell' the policy (*2*). The exclusion of the local stakeholders led to civic protest and indeed

skilful *politicisation* of the issue (*3*). The opposition pictured the Vice Minister as ´the enemy´, conducted a ´knowledge guerrilla´ unearthing an apparently classified document, undercut the assumptions of the Department's frame, and successfully counter-posed a frame in which controlled flooding was the problem rather than the solution.

Due to the antagonism and polarisation inherent to politicisation, chances are that politicisation takes the form of hardened positions. However, if there is no *a priori* consensus on values, depoliticising real social tensions over an issue will only defer politicised confrontation. The analysis of the Ooij suggests that, given the basic willingness of local stakeholders, their positions were not immutable and a multi-stakeholder process of 'joint learning' might have opened alternatives rather than the politicisation that ensued. In this sense the road taken was a missed opportunity for hammering out a mutually acceptable deal, a mode of safety governance in which Hilhorst's three domains of knowledge and action (experts, managers and locals, see Ch. 1) could act in step. It proves difficult for central government to be less controlling and for citizens to break an ingrained culture of relying on government for its security. However, other Space for the River experiences, such as interventions at Lent, Noordwaard and Overdiep Polder, show that citizens' initiatives are not restricted but can also bring alternatives to proposed interventions (Roth and Winubst, 2007).

In light of a perceptibly more concerted effort in shaping calamity policy between Public Works Department and the Home Office, the latter of which is more used to dialogue and bargaining, a greater role for citizens in future calamity policies cannot be ruled out. But the title of current state-funded research into ´Limits to participation´ (´Living With Water´ Project no. 008), might be a pointer that the Dutch government is wary of ceding too much space.

Postscript:

In November 2007 a study by Aachen University was announced on how to handle a dike break at Telecom (Fig. 7.2). Such a calamity would flood both the Dutch and German sides of the Ooij and Duffelt polder. The study involved the reinstatement of the compartmentalisation of the polder, abandoned in the 1920s. The Ooij platform responded saying it would not protest the study, as compartmentalisation is about reducing impact rather than cutting dikes to save others (*Gelderlander,* 2007).[346]

Chapter 8: The Jubilee River: flood alleviation or flood creation scheme?

8.1   INTRODUCTION

> Resigned local citizen: 'We like Venice…' (interview, 2000)

The floods of July 2007 brought shock and disruption to large parts of England. But while flooding caused traffic chaos on the M4 motorway at Maidenhead, the town itself escaped thanks to the Thames flood relief channel, the Jubilee River. Though small by international comparison, the flood relief channel was the biggest and most expensive riverine flood relief scheme to date in the United Kingdom[347]. Apart from its environmental benefits and technological daring, the project sought to be socially responsible by engaging citizens to participate in its decision-making.

The Jubilee River project was a tangible result of a vision of greener, more participatory and especially more integrated water management for the Thames imagined by John Gardiner and colleagues with the National River Authority, Thames Region, a precursor of today's Environment Agency.

Despite a public enquiry, a lawsuit and Parliamentary Questions, Gardiner could still claim at the turn of the century that the project was 'uncontroversial' (pers. comm. Gardiner, 2000). However, the Jubilee River became subject to more controversy and technical investigation in 2003 after parishes downstream to Maidenhead (Datchet, Old Windsor, Wraysbury, Horton and Staines) experienced appreciable flood damage. This raised the issue whether the flooding at Datchet was the consequence of an 'Act of God', of irresponsibility of building in the floodplain, or of human failure on the part of the planners of the Jubilee River.

The present chapter pits three competing *problem frames* in flood management against each other: flooding as the problem, floodplain development as the problem, and the project itself as the problem. Different blame and remedy stories clashed, based on different flood, river and risk management paradigms.

The chapter starts with a review of the changing frames in river and flood management as identified in the UK literature (8.2 and 8.3). Against this backdrop, Section 8.4 traces the selection of the preferred option and objections and alternatives tabled by opponents. A project that challenges a dominant paradigm (frame) has to clear a great number of hurdles (Section 8.4.2). Section 8.5 looks into the strategies to co-opt or confront opponent stakeholders. It examines how successful the initiative for a participatory process has turned out in the light of conflicts with various stakeholders which necessitated various changes and led to a Public Inquiry in 1992. Section 8.6 goes into the recurring floods in 1998, 2000 and especially 2003, which tested the flood diversion channel and led to acrimony between flood managers and stakeholders.

The case study is based on an extensive archival review of published and unpublished project and policy documents, some 15 interviews with senior project and policy staff of the Environment Agency and MAFF (now DEFRA), the Internal Drainage Board, Buckinghamshire county, Taplow parish, Eton College, English Nature, multiple conversations with Flood Hazard Research Centre staff at Enfield, as well as exchanges by electronic mail with Maidenhead citizens and project consultants, mainly in 2000 and 2001. Interviewee selection was the result of snowballing. Apart from project documentation, the research draws on grey project literature kindly made available to me by John Gardiner in 2000.
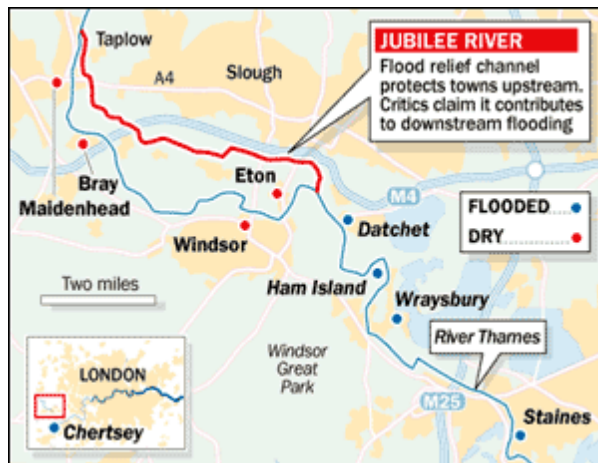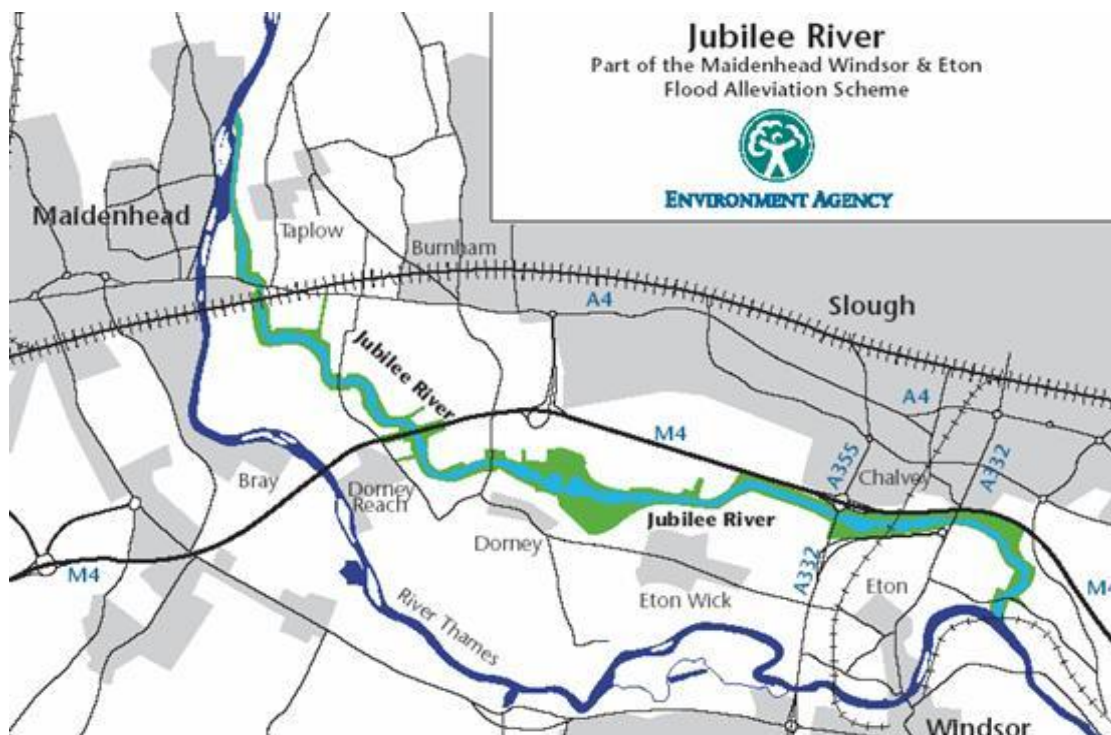
FIG 8.1A,B   The Jubilee River project area.

8.2   RISK AND RESPONSIBILITY AT THE INTERFACE OF WATER AND SPACE

8.2.1   *NAMING, FRAMING AND BLAMING*

To understand actors' positions in a dispute, one has to understand their *problem frames*. 'The frames held by actors determine what they see as being in their interest, and therefore, what interests they see as conflicting' (Schön and Rein, 1994: 29)[348]. Frames mobilise the values against which 'risks' and policy 'problems' are judged to exist. Ambiguity and indeterminacy is reduced by *naming* things within a certain frame, to contextualise the issue. 'Naming' (labelling) of problem elements influences the range of alternatives that will be examined. It is within a frame that problems are judged and synthesised. Framing is defined as 'selecting and highlighting some facets of events or issues, and making connections among them so as to promote a particular interpretation, evaluation, and/or solution' (Schön and Rein, 1994).

The act of 'naming' can make an issue political: it explicitly identifies a culprit causing a loss, it attributes an undesirable effect to an undesirable cause. Some issues become embroiled over the allocation of blame and the distribution of power, while others appear to be tolerated within norms of social values and trust (Tansey and O'Riordan, 1999: 72). The naming of 'foreign elements' and ascribing blame to them for mishaps is a political act. 'Blaming' refers to who or what is held responsible for the problem or perceived threat. In the domain of risk and security, such 'blaming' is especially salient when it concerns existential 'survival issues'. (Buzan *et al.*, 1998).

The conception of risk and responsibility underlying different risk frames brings different expectations and prescriptions of what government and citizens are expected to do to reduce flood risk, that is, the governance arrangement. This section will inventory the frames of risk and responsibility in water management, river management and disaster management, as identified in the literature: who and what caused the risk and who is responsible for remedying it? These frames will be the context for an analysis of the discursive moves made by the main actors in the debate on the Jubilee River. Risk is politicised when someone is felt to be to blame (Douglas, 1994). The standoffs between planners, developers, citizens and Environment Agency can be seen as ´blaming´ narratives (Section 8.6.3).

8.2.2 *FRAME CHANGE: LOOKING FOR A NICHE*

Hegemonic frames provide stability in an issue-area. Change is bound to be incremental, will mostly take place within bureaucracies and companies (the socio-technical regime) and will eventually bring lock-in (closure) rather than radical paradigm shifts (e.g. Dosi, 1982). By contrast a major change in policy frames is marked by a broad public debate (Scrase and Sheate, 2005). What changes a dominant frame (policy paradigm)?

Out of the several available approaches to understanding policy change, a particularly appealing candidate is Punctuated Equilibrium Theory (Baumgartner, 1994), which suggests that crises and catalytic changes and focusing events are strong candidates to revolutionise dominant policy frames. Due to their strong psychological impact, flood events as 'windows of opportunity' fit the bill perfectly, and indeed Johnson *et al.* (2005) have shown that the floods of 1947, 1953 (coastal), and the river floods of 1998 and 2000 provided the impetus for policy change in British river management. However, this is not a hard and fast rule: as Scrase and Sheate (2005: 122) note, the landmark Drainage Act of 1930 was not impelled by a flood event, and as we shall see, neither was the creation of the Maidenhead, Windsor and Eton Flood Alleviation Scheme (MWEFAS), the later Jubilee Channel. Moreover, these policy changes were not accompanied by a meaningful change in the constellation of actors and rules that make up the policy regime governing an issue area.

I will therefore consider a different candidate analytical framework than 'focusing events' to understand policy transition. I will examine the MWEFAS, largely the brainchild of John Gardiner and his team at the National Rivers Authority, Thames Region (NRA-TR) and its underlying philosophy of green engineering and integrated river management, as seeking to fill an innovative *niche* within a multi-level perspective of transitions (see Box 8.1). The 'green engineering' approach generated a clash between different frames (paradigms) and may have been crucial in promoting substantial shifts in the flood management regime.

Box 8.1: Multilevel perspective on transitions

Niche: denotes a space where individuals, based on existing knowledge and capabilities develop new technologies or concepts that are geared towards problems of existing regimes. Niches provide space for learning processes and development of social networks, which support innovations. Innovations generated at this level are usually radical.

The patchwork quilt of *socio-technical regime* accounts for stability of existing technological development. Regimes refer to rules of the game that enable and constrain activities within communities. Patterns may arise here in the form of path dependencies, whereby particular innovations are facilitated or constrained by existing networks, investments, or regulations. If innovations are generated at the regime level-they are mainly incremental.

The *socio-technical landscape* encompasses the wider, 'harder' context of a regime in the form of broad economic, demographic and (geo)political processes. The context of landscape is very difficult to change and if it does change, it takes much longer than in the case of regimes (after Wieczorek and Vellinga 2004)
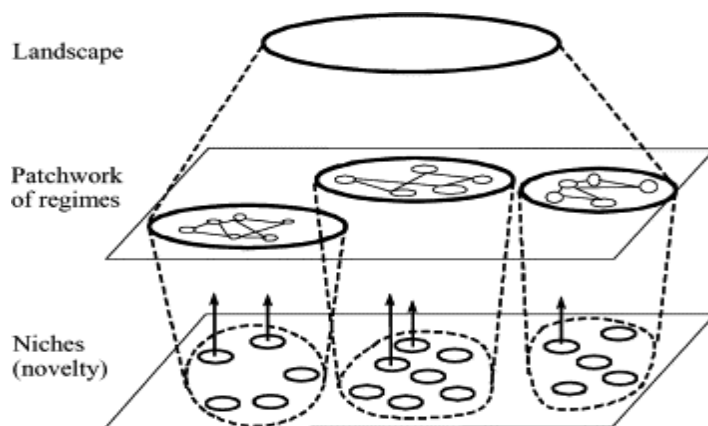

FIG 8.2 Transition landscape (Geels 2004)

8.2.3   PARADIGM SHIFTS IN UK RIVER MANAGEMENT – CHANGING (MASTER) FRAMES AND GOVERNANCE

It is a truism to state that the UK does not have a 'disaster culture': the myth that Britain is largely free from natural hazards persists (Bakker *et al.*, 1999). As a result, citizens were not very aware of floods and other types of risks until the Easter Floods of 1998. When a flood happens, stakeholders perceive it as a freak event, display a pervasive attitude that floods are 'Acts of God' and rely on self-help rather than on government.

To make it onto the public policy agenda, a risk has to be perceived as a *public* risk. When people's desire for security has to be squared with the change and discomfort that inevitably accompanies an intervention that promises to provide protection, there is a tension. People seek security, but also stability and continuity ('ontological security'). Schon has described the dynamic conservatism of social systems as a fight to remain the same (Schon 1971 q. in Fordham, 1998). Conservatives perceive risks as less dangerous than progressives (Lupton, 2000). In this dilemma, anxiety about flooding can translate as aversity to change, rather than aversity to risk. Thus, the Maidenhead flood scheme led to antagonism between liberal newcomers and change-averse residents who lived in the areas all their lives. An example of this conservationism is the concern for the integrity of the Green Belt, which has long been *sacrosanct* (Elsen, 1986). The construction of the flood channel itself also counts as development of the Green Belt.

The untouchability of the Green Belt has increased market pressure on non-Green Belt land, in turn increasing flood risk (Norton, 1994: 41). Despite the ban on Green belt development, in practice, each year 2400 acres of Green Belt are being developed.[349] England's South-East is also the economic powerhouse of Great Britain. The ensuing housing boom is actively promoted by the urban-oriented Labour Government. This puts great strain on both drinking water resources and on space. The challenge is thus to balance growth and conservation, between urban sprawl and rural values.

A shift in emphasis from rural to urban is also perceptible in the changing philosophy underlying flood management. Tapsell, Johnson and Penning-Rowsell (2005) identify three phases in flood management strategy in the UK:

- land drainage to ensure food security (1930s - 1980s), aimed at protecting fertile land.
- flood defence[350] (arterial drainage, 1980s and 1990s). This aims to protect people while working with the environment and reducing risk.
- flood risk management (recent years), focusing on land use planning and development control. The 'risk-based approach' not only considers the probability of flooding, but also its impact (damage).

These phases can be seen as the expression of quite different (security) problem frames (Table 8.1). In Britain, Flood Defence Boards, originally known as Land Drainage Boards, are charged with improving land drainage for agriculture. After the First World War, *food security*, which underlies the first of the three phases, became a top priority. As late as 1977, 100,000 ha per year were drained with grant-aid and the Ministry of Agriculture supported a new drainage project to boost food production (Tapsell *et al.,* 2005). In spite of persistent agricultural production surpluses since the 1980s, the agricultural sector retained a privileged position in Britain. The rise of nature conservationists however successfully took on landowning interests in the 1980s. In 1984, grants for lowfield drainage came to a stop (Scrase and Sheate 2005) and urban flood protection came to be prioritised. The coalition between urban and 'green' flood defence became the new dominant problem frame when the Maidenhead flood scheme was conceived in the mid-80s. This formed the background of the green flood protection scheme.

Gardiner (1992) sketches a different story of three-stage development towards catchment management, which complements Penning-Rowsell *et al.* (2005) (see Table below). An exploitation-led phase characterised by single or dual-purpose schemes gives way to integrated management as pollution starts to impact on the whole of society (cf. the 'hydraulic mission' introduced in Chapter 4.3). The drive to improve *water quality* through pollution control[351] triggered more integrated modes of river management paradigm creating opportunities for water *quantity* (flood) management – a structural (re)linkage of previously isolated domains. It was to take until 1992 for the National Rivers Authority to start drawing up catchment plans – still well before the European Water Framework Directive of 2000. Catchment plans were in fact oriented at sub-basins, so that a larger river like the Thames has six river section plans. 'There are flooding problems along the whole length of the river Thames, but it was considered impossible to solve the problems along the whole length in one go.'[352] The MWEFAS was thus considered a first step (niche) for this (with 182 more to follow) towards the a 'whole-catchment' approach (the third stage in Gardiner's chain) for the Thames, with the hope of following it up with a downstream extension, a channel running between Datchet, Chertsey, Staines and Beaconsfield. The present chapter assesses how far he got with this striving.

In the process, the case of Maidenhead, a prosperous commuting town for professionals working in London, provides an interesting interface between the new rich and the landed rural classes. The traditional countryside dwellers saw the channel as a distortion of an otherwise most agreeable landscape for the benefit of the newly rich.

TABLE 8.1   Chronological development of flood management and river management, after Gardiner (1992) and Tapsell, Johnson and Penning-Rowsell (2005). The MWEFAS project was conceived in the mid-1980s.

	Flood management paradigm (Penning Rowsell *et al.* 2005)	**River management paradigm** (Gardiner 1992)
Pre-war	Land drainage (food security)	Exploitation-led phase
1950s		Integrated management to control pollution
1960s – 1970s		
1980s	Flood defence	
1990s		Catchment management
Recent	flood risk management: land use planning, development control	

The MWEFAS project was born out of a desire to move from traditional incidental flood defence engineering (hard structures, straightening rivers and draining wetlands, Green and Warner's 'second wave' (see Table 8.2 below), to a more environmental and integrated form of *river management*, the 'fourth wave') combined with a stronger control on floodplain occupation behaviour – the third wave.

TABLE 8.2   Green and Warner's (1999) typology indicates a chronology of four flood responses, governance to deal with risk and responsibility, each of these implies a threat and a remedy.

Wave	Paradigm	Recipe	Management focus
1	Unmanaged (pre-modern)	Live with floods	Coping
2	Protection	Control river behaviour	Risk management
3	Nonstructural	Adjust human behaviour	People management
4	Integrated (Holistic)	Mixed approach	Uncertainty management

TABLE 8.3   MWEFAS/Jubilee River, Project chronology

Year	Event
1983	Thames river flood study
1989	Special Inquiry; Permission from Drainage Board
1990	Maidenhead flooded
1992	- Datchet flood study - Public inquiry on MWEFAS
1993	Inspector's report
1994	Secretary of State approves planning application
1995	- Final approval - Legal challenge to Compulsory Purchase Order (Eton College)
1996	Newly created Environment Agency takes on responsibility for scheme and turns first sod
1998, 2000	Floods in England, Maidenhead area not affected
2001	Official inauguration of Jubilee Channel (=MWEFAS) 31-12 end of Environment Agency freehold;
2002	Awards for Jubilee Channel
2003	Flood damage downstream of Jubilee Channel
2004	Ashly Report damns construction of Jubilee Channel
2006	Environment Agency sues its lead contractors

8.3   PLANNING BETWEEN A ROCK AND A HARD PLACE

'You build houses in the floodplain of a river, that is bound to have some effect.' (Maidenhead official, 2000)

This section explains the planning set-up of flood and floodplain management in Britain.
Some public speakers would contend this is a contradiction in terms: the British ´just do not do planning´ (FHRC consultant). Flooding, as a case in point, has been attributed to poor planning of riverside areas. However, it seems fairer to say that while there are plenty of plans, river planning guidelines have not been enforced very much.

Despite calls for 'Joined-Up Government'; the British organisational scene also remains characterised by very loose coupling between agencies. Two interviewees claimed a lack of inter-organisational communication and cooperation to be an aspect of the individualistic British culture. 'We don't *want* to communicate' (EA consultant). Relations between central and local government have been especially difficult. The Thatcher administration (1979-1990) has sought to erode the powers of local government and transfer them to a public-private structure, which was only partly rescinded by Labour (Jouvé, 2005).

TABLE 8.4 Key actors in the UK flood regime

Central government	- MAFF/DEFRA - DETR (The Department of the Environment, Transport and the Regions).
Local government	- Local Authorities (Boroughs and Counties)
	- The EA (previously NRA)
Private sector	- The (land) development industry

Nevertheless, there is a decision-making structure, which will be rendered here in highly simplified form.

The *Ministry of Agriculture, Fisheries and Food* (MAFF, now DEFRA) can be said to dominate the decision-making regime: any plans initiated by *Environment Agency* and *Local Authorities* need to be accepted by the Ministry (Werritty, 2006). In practice, MAFF considers the 257 *Internal Drainage Boards* (agricultural land), the Environment Agency (main river), and 400 Local Authorities (non-main river) as its operating agencies,[353] and does not appreciate the Environment Agency initiating its own policies (Ingen-Housz 2007).

MAFF, the EA and local councils make up *Regional Flood Defence Committees*, deciding on and implementing flood defence and drainage works in low-lying areas. There is some overlap of responsibilities in this system[354].

Obviously, these main actors represent different interests vis-à-vis flood(plain) management. Local Authorities of towns have tended to promote floodplain development to raise municipal revenue, while the Environment Agency now seeks to stop any development of the floodplain. Constraining the river to protect population concentrations in urban areas may well displace the problem to rural areas, while Internal Drainage Boards traditionally defend their agricultural mandate rather than built-up areas (Penning-Rowsell *et al.* 1987).[355] While the central government has various 'central mechanisms and default powers', intervention is politically risky. Central government has only scant idea how local government planning works. Central Government is therefore content to leave floodplain policy to local authorities. This caused it not to intervene despite a deadlock between local authorities and water managers (Norton 1994), playing out their strategies in the ever-contentious interface of water and space: local floodplain management.

Another key national player in flood governance are the private insurers. In 1961, in an act of what the *Economist* has called 'obsessive avoidance of risk', the British government 'offloaded the

burden of compensating damage of victims of flood damage' (*Economist,* 2006). The public-private gentlemen's agreement means that the state takes care of flood defences, while the private companies – for fear of nationalisation - agreed to provide cover no matter what the risk, except if continual, regular flooding was unavoidable (Huber, 2004). The UK government does not take any responsibility in protecting citizens from floods (Scares and Sheate, 2005) nor in compensating for losses:

> 'Except in limited circumstances (...) no compensation is payable to those affected by flooding or erosion, including cases where it is decided not to defend a particular area, or to undertake managed realignment' [Government's statement on compensation, Government statement on flood compensation, q. in OXERA/MAFF, 2001: 16).

However, if a flood happens, the victims carry the can, as the insurance fee for the area will go up (Crichton, 2002).

After the 1947 floods, floodplain development risk had briefly become a significant *risk frame*: the Chief Engineer of the Thames Conservancy (created in 1857) called for planned zones along the river in which development was banned. Proposed measures were quite radical: 'When any property in the flood plain came up for sale, [he said] the County Council should buy it and demolish it. This was not popular and the idea soon died the death' (Martin, 2005). Development on the urban fringe west of London after the Second World War was thus carried through against Thames Conservancy advice. Urbanisation exacerbated runoff volumes and speeds and encroached on the floodplain. During this epoch, attempts at comprehensive planning developed largely in a vacuum - planners and developers mutually ignored each other. While post-WWII, land conservation has been paramount, agriculture and mineral extraction have largely been exempted from land-use planning. Local authorities must have a plan but the law is not very specific on what this plan should cover. An environmental consciousness on the negative impacts of drainage on wildlife emerged in the 1960s, but the Nature Conservancy Council was understaffed compared to the drainage authorities. MAFF appointees had a strong voice on the local and regional Land Drainage Committees (Scrase and Sheate, 2005: 126-127).

Until the 1980s, floodplain policy remained liberal. Government Circular No. 17/82, for example, called for Water Authorities to adopt a 'positive' approach when considering proposals for infilling of the flood plain. Small developments and domestic extensions were not referred to Thames Water for comment. The emphasis changed to minimising the number of people and buildings at risk to flooding to preventing the impedance of flow and loss of flood storage capacity.

The original Thames Conservancy had meanwhile become the Thames Water Authority in 1974, to become the National Rivers Authority, Thames Region in 1989. The National Rivers Administration-Thames Region (NRA-TR) started with an enhanced environmental mandate after the Land Drainage Improvement Works (Assessment of Environmental Effects) Regulations of 1988. Annoyed at the laxness of floodplain controls, it decided to show a firmer hand vis-à-vis the developers and local authorities. Thames Water's River Division started to strengthen its Planning liaison team by including experienced planning professionals of the Royal Town Planning Institute to a take 'tough negotiating stance' with developers from 1988 (Gardiner, 1996), the year the Maidenhead scheme was approved. The NRA was well aware that its flood defence initiatives did *not* respond to a widespread public demand, and it was to take until the turn of the century that development control was on the agenda again. Because of agency under-funding and tight deadlines for appeals, Local Planning Authorities (LPAs) are easily outfoxed by developers. But it is not only developers that need persuading to limit floodplain encroachment. Local Authorities have great discretion in setting floodplain policies and as a result some authorities are far stricter than others. The water authority is a statutory

consultee in LPAs, but the environmental authority's guidance is overruled in a great many cases (Crichton, 2005).

The authority's say has been eroded by institutional reform. The Thatcher administration (1979-1990) sought to erode the powers of local government and transfer them to a public-private structure, which was only partly rescinded by Labour (Jouvé, 2005).The privatisation of the water sector pushed through in the 1989 Water Act split Thames Water into a commercial water supplier and a quasi-governmental National Rivers Authority (NRA). This separation proved extremely disruptive to those left behind in the public sector[356]. The multiple reorganisations left their mark on the continuity of the archives impairing institutional learning and loss of institutional memory. Due to the rushed division of the assets, records have proved irretrievable. During my visit to Reading in 2000 I observed that the Environment Agency (EA) there only had few files left from before 1990. New developments are seldom communicated to those who stayed behind and established lines of communications broken down. Commercial sensitivity makes information harder to come by, as gleaned from two EA interviewees:

> 'You have to find your way round the system. If I try phoning Thames Water and they try to block me, I call a friend within TW to put me through.'
> ʺThe bit you're dealing with doesn't pass on information to the bit that isn't privatised.'

In 1995, the NRA was again split up and reformed, the next in a long succession of overhauls. The new Agency-to-be was intended as a one-stop shop for business to overcome an 'administrative nightmare' as well as a strong counterpart for the European Environmental Agency (Cullingworth & Nadin, 1997). Created under the Environment Act of 1995 out of the NRA and other environmental agencies, the Environment Agency has a general supervisory duty over all flood defence matters, as implemented by the Flood Defence Committees, but only has largely *permissive* powers over land drainage and flood defence works on main river and only some regulatory control over non-main rivers (see below). The Ministry of Agriculture retained control of new works through its allocation of grants.

The Environment Agency, inherited a beleaguered position from the NRA. The agency was nearly privatised in 1994 (ENDS, 1994) while its budget was immediately halved by the Conservative government of the day. While the EA seeks an enhanced role as flood protector, it has little mandate and financial leeway to do so.

8.4   SITE SELECTION AND JUSTIFICATION

8.4.1   *LOOKING FOR OPPORTUNITIES: WHY MAIDENHEAD?*

As the scheme had to be a flagship, a success on the way to something bigger, the choice to locate the flood scheme in the Borough of Windsor and Maidenhead seems far from accidental. Because of the experimental nature of the scheme, a site was selected for which there was sufficient historical flood information as well as a foreseeable positive cost-benefit ratio. The Section hereafter looks at the debate over how that ratio should be calculated, after which the protection standard is discussed.

The River Thames rises in Gloucestershire and flows east. When it reaches Maidenhead, it reaches a bottleneck: the natural channel only has a capacity for 275 cumecs - above that level, the banks will overflow and a flood will occur. Upstream of Oxford, some areas are therefore substantially flooded during relatively minor events. During floods, the River Thames overtops its western bank at Maidenhead, Cookham and Bray. After the big flood of 1947, lesser floods in 1970 and 1990 continued to cause minor damages. The February 1990 flood lasted 14 days, affected 520 properties in Maidenhead and entered 40 of them (www.jubilee-river.co.uk), so a

popular support base was anticipated in Maidenhead, especially since the number of at-risk properties had grown: from 1560 in 1947 to 3303 in 1989 (by 1998 there were 5000).[357]

Opponents have pointed out that these houses should not be in the flood-prone zone anyway. The stance on the part of the borough of Windsor and Maidenhead on planning has been less than firm. The Borough judged that the zoning regulation after 1947 would cause the area to become derelict and thus destroy its amenities. Maidenhead's Local Authority sought to strike a balance between limiting the number of people at risk from flooding and foregoing the benefits of development. The 'town map' of 1953 - and Review Town Map of 1965 became the point of reference: it is the only document on which decision-making could be based until the 1978 floodplain policy (Norton 1994: 26). Constructions that would encourage developments in the vicinity and in turn radically alter the character of the area were refused. Maidenhead will permit development in the 1947 floodplain (1: 50-60 year flood) but not the 1974 floodplain (1:5). It controls residential development in the floodplain. Since 1947, Maidenhead Council planners have allowed the construction of over 3000 dwellings on the floodplain. Approval of planning applications was not even-handed[358]. While a 1961 appeal established the importance of flood risk and a level of acceptable density, Norton suspects that restrictive infilling policy may have been instrumental to other goals:

> 'flooding grounds were used as an excuse for refusal for applications which were seen as unfavourable for other, unspecified reasons. (...) the local planning authority seems to have used flood grounds as a method of filtering out the proposals it did not like.' (Norton, 1994).

Having found that along the length of the Thames, areas were flood-prone, in 1983, a study of the Thames was carried out with a view to developing an Integrated Catchment Management Plan (CMP) to ensure drainage would be subject to source control and balancing of the various water-related interests (Gardiner, 1992). Seeking to integrate structural, environmental and socioeconomic aspects, the study is rated as an early example of multidisciplinary research to identify optimum design and routing for a multi-functional land-use project. As there was an extensive flood record of Maidenhead flood levels[359], the town was a promising first candidate for an intervention scheme on the Thames. In 1981, the Thames Water Authority appointed an engineering consultancy, Lewis, Fryer and Partners, to study options for the relief of flooding in Maidenhead.

On 26 January 1989 the Regional Land Drainage Committee (RLDC) agreed to allow a flood alleviation project at Maidenhead and to investigate the optimum level of protection and flood alleviation works for Windsor and Eton. The mainstay of the project is an 11.6km bypass designed on the East bank of the Thames, leaving the river at Taplow Mill, upstream of Boulter's Lock at North Maidenhead and rejoining the river downstream at Black Potts viaduct (Windsor), to ease the peak flow at Maidenhead in a 1 in 65 year flood. The 'River' is in fact a traditional trapezoidal channel, with a bottom width of about 30 m, and since the slopes are 1: 1.5, the channel is 45 m wide at the top. There is a 300mm freeboard to accommodate bank level fluctuations (Atkins Closure report, 2007). To give the channel a 'natural' look, the river is unlined, divides around islands and has natural river banks and reed beds to recreate habitats lost to past land drainage works and channel improvements and the local Thames corridor. According to the National Rivers Agency/Environment Agency these works had turned the project site into a 'relatively ecologically uninteresting area'. MWEFAS envisaged the creation of new green spaces: a wetland, providing reed beds, nesting boxes, pools, beaches, etc. to attract a wide diversity of birds, amphibians and insects, plus an ecological study area. Walks, picnic areas and bird-watching and fishing sites are incorporated for so-called 'passive' recreational purposes. A cycle path along the river leads all the way to Heathrow.

The Maidenhead channel was designed to carry 215 cumecs (42% of Thames flood flow) during a 1 in 65 year event - the remainder would be carried by the Thames and the west bank channels. In addition, the scheme comprises a flood wall at Cookham and defences at North

Maidenhead.[360] The Thames flood of 1947, the greatest flood in centuries, had caused great damage in Maidenhead, with 2000 houses inundated[361]. When in 1954 Maidenhead was flooded again, however, this was due to two local channels overtopping their banks: the Maidenhead Ditch (the main flood route through Maidenhead) and The Cut, rather than the river Thames. In the 1960s these streams were widened so as to reduce flood incidence to 1 in 10 to 1 in 20. The MWEFAS scheme included the rehabilitation of the silted-up Ditch to provide flood capacity of 15 m^3/s. 'This remains to be done'.[362]

8.4.2 CLEARING HURDLES

Community charge

It would be too bold to maintain that the Jubilee River was built just because there was money available, as some interviewees have claimed. However, there is much to be said for the theory that it took full advantage of existing institutional opportunities.

Funding for the Jubilee River primarily came from two sources: the Agriculture Ministry's grant in aid and the Local Authority *community charge*. It is mainly townspeople who pay the charge, as the rate only goes on properties; farmland is zero-rated. This system means that affluent areas can raise far greater sums for flood protection than poor regions.

This mechanism rewards schemes in wealthy (financially secure) areas, where the value of assets to be protected is likely to be high. As the regions in practice have to pay for their own flood defence, the richest regions can afford the 'best' defences, while the most flood prone areas tend to be among the poorest.

In Southeast England, six million people live in flood-prone areas. The development of floodplain land has more than doubled in the past 50 years, so that exposure to floods on the Thames is growing fast. The lower the elevation at which people live, the more flood-prone they are, and since floodplain land is cheaper, this land is often developed for social housing (Crichton, 2005). As a result, the poor are more at risk from flooding than the affluent. The vulnerability school of disaster studies homes in on such systemic inequalities – poverty, marginalisation – which explains why people have little alternative but to live in flood plains in spite of obvious vulnerability to flood hazard (Blaikie *et al.*, 1994, Pelling, 2003). But in the case of Maidenhead, with an average income 15% above the national average, it is the affluent who knowingly take the risk of living by the water (interview, consultant). Maidenhead is only 35 miles west of London, and commuting to the capital by rail or road is reasonably easy. Successful professionals working in London have bought properties in the attractive area on the river. The affluence of the area was not lost on newspapers reporting on the 1990 floods. They spoke of 'showbiz people and eccentrics' and 'expensive boats mooring alongside' during the evacuation of 1990. According to one news report, the Maidonians fleeing the flood looked 'like women leaving a ball'.[363] People in the region have no problem conceding that MWEFAS is a project for the affluent, that could not have happened in upstream Wales despite Wales being more flood-prone.

MAFF Grant in aid: Disputed Cost-Benefit Analysis

In addition to the community charge, the Ministry of Agriculture, Food and Fisheries (MAFF) can give grant-in-aid for capital works for flood protection. In principle, the Ministry's contribution would be limited in the relatively rich Southeast, where MAFF contributes 15% of the value of capital project (elsewhere in England and Wales this figure may run up to 75%). Still, given the relative constraints of the Environment Agency resources, MAFF's contribution was very important to the project.

Originally, the cost of the combined scheme at a 1 in 55 year flood protection standard was estimated at £36.3mln and to provide benefits of about £41.7mln giving a benefit cost ratio of

1.15 to 1 (internal NRA memo, 16 February 1989). These figures soon were to be revised upwards.[364]

U.K.'s Ministry of Agriculture (MAFF, now DEFRA) is populated by engineers and economists (Bakker *et al.*, n.d.) and economic justification has been the only criteria in MAFF's 'decision rule' for funding flood schemes (Crichton 2002). A healthy cost-benefit ratio coupled with a punishing discount rate for the life span of the project – required by the Treasury - proved a major hurdle to have the MWEFAS accepted and funded. MAFF took a strongly tangibles-oriented stance, only accepting cost-benefit analysis as a viable funding criterion.[365]   Since everything depended on the economic viability of the project, the choice of methodology to arrive at the numbers was crucial.

The NRA wanted to develop a different scoring system with due regard for indirect costs (such as costs of disruption to traffic and emergency services to cope with a flood) and socio-economic values. For example, people need medical care and run a greater risk of dying from stress after a flood. This brings direct medical costs, which are not often counted but also indirect social costs.

The Agency was especially interested in the success of the MWEFAS scheme as it would open the door to a follow-up, Datchet-to-Wraysbury flood scheme, further down the river as part of an integrated Thames protection plan. Therefore, it welcomed a method that would boost the 'benefits' side of the CBA. This could be done in two ways: by increasing the tangible (material) benefits, e.g. by higher assessment of property values, or by involving intangible (immaterial) costs, such as psychological and environmental damage – not counting the cost of social disruption when a major traffic corridor, such as the M4 is flooded (www.jubilee-river.com quoting NRA (1992b)[366]

In 1990, the NRA commissioned the Flood Hazard Research Centre, Middlesex University, whose flood manuals form the basis of flood damage assessment in the UK to calculate that ratio for MWEFAS. Gardner had worked for years with the Centre's Director, Prof. Edmund Penning-Rowsell, and in 1995 was to become a professor at Middlesex.

FHRC researchers (e.g. Parker, 1983) had long argued that non-monetary (non-tangible) aspects such as disruption, trauma of displacement may be as crucial as monetary values. FHRC findings for the Maidenhead scheme (Penning-Rowsell *et al.*, 2005) underscored this earlier work. Apart from this, the brunt of this work concerned flooding from sewers (Green, 1988) and salt water (Parker *et al.*, 1983). The debate over the quantification of environmental damage complicates the equation even more. The FHRC calculation did not rule out that 200% could be the more realistic figure.

To reflect the greater affluence of the residents of 'upmarket' (Norton 1994) Maidenhead, Eton and Windsor compared to the South East average, a 'Maidenhead factor' was introduced. This inflated the value of assets to be protected and, as a consequence, the benefits of the scheme. This was significant since the first calculated benefit-cost ratio had not been impressive to start with: At first it was assessed at 1.21 : 1 but the 'Maidenhead factor' boosted the figure to 1.41 : 1, which the Environmental Agency called a 'very robust figure' (EA, Oxford visit, 1998). However, inclusion of recreation and amenity benefits were disputed by the *Treasury,* reducing the cost-benefit ratio to a less convincing 1:1.07. The cost at that time was assessed £45 million, the damage prevented over its lifetime as calculated at £50 million.

Environmentalists argue that monetisation of social and environmental values don't hold water, as other types of values are at issue. There is no commensurability between the two (Espeland, 1998). Scrase and Sheate (2005: 118) for example consider cost-benefit analysis part of the 'naturalised' flood frame: 'in flood defence policy few people ever question the application of cost-benefit analysis, which is essentially a test for national economic efficiency, in a context that was once framed as one of unpredictable and local risks.'

But the water agency was in no position to defy the quantitative frame. The political nature of the calculations caused opinions over the way the calculations should be done to be widely

divergent. The assignment was perceived by a MAFF interviewee as a 'numbers-fiddling' exercise to promote the scheme (interview, DEFRA, 2000). However, while others interviewee called the MAFF policy officer a ´dinosaur´, the FHRC numbers also failed to satisfy the NRA: 'in 1990, the flood in Maidenhead, our figures were quite a lot higher than the Middlesex Uni assessment' (int., EA, 1999).

Only after the floods of 1998, the intangibles camp scored a victory after the Agricultural Select Committee urged to include social and environmental values in the economic justification. The outcomes of these evaluations however remain subject to much dispute, given the necessarily subjective way these costs and benefits are calculated. After the 2003 floods the MWEFAS numbers were 'reassessed' (JMP Flood Report 2003[367]).

NPV and CVA Apart from disputes over the values included in cost-benefit analysis (CBA), the discussion was complicated by studies using different methods of calculation. Other commonly practiced ways of evaluating flood investments *ex-ante* include the Economic Internal Rate of Return (EIRR) practiced in FAP-20 (Chapter 5) and Net Present Value (NPV). FHRC commissioned Nigel Arnell from the Institute for Hydrology to do a run to determine the Net Present Value of the future 50-year benefit of the scheme. Arnell concluded that there was a 66% probability that 50-year benefit would be less than the scheme costs, then placed at £26,68mln – in other words, a 34% chance of cost recovery (Arnell 1988).

These measures however do not take social benefit perception into account. Another consultant, Jan Brooks, carried out a Contingency Valuation study into the value of the scheme to the local community. This brings out non-market values, since the trauma from evacuation and invasion of the private sphere[368] may well be very different from actual market values of damaged goods and properties. 'The questionnaire yielded a £3mln benefit. MAFF threw that out completely' (interview, consultant).

Proceeds from Gravel?
Given that the Thames has a gravel bed, how about paying for the scheme from gravel proceeds? As profits from gravel can be anything between 40-60p to £1 per tonne, potential profits from an expected 3.5mln tonnes would be substantial. One observer even charged that gravel proceeds were the main driver for the Maidenhead project (Clearhill 1994). But prior rights to land sold by the Environment Agency would eat into the EA's proceeds: the land owners can claim royalties, which makes it hard for the Agency to derive any profit from the sale (Legal Counsel, p. 5). Indeed when disputing the Valuation Office's decision that the minerals extracted from the river were rateable (taxable) as a commercial operation on the basis that it does not make a profit on mineral sales. This Valuation Tribunal decision saved the Agency half a million pounds in rates.[369] Still, an economic risk was that the project was in competition with Eton College's rowing course, which would produce 4.5 million tonnes in 11 years for a 'contracted market that is already fully supplied'[370]. Unlike in the Netherlands case, gravel royalties were eventually not included in the benefits but showed up as 'negative costs'.[371]

8.5   SELECTION OF ALTERNATIVES

The need to arrive at a favourable cost structure limited the number of feasible river management alternatives for flood defence, but still left often a range of possibilities for selection. For example, there is no a priori reason why there should be a channel. The present section looks at the selection process.

The Thames is a rain river in a rainy area - average rainfall at Bray (Borough of Maidenhead) over the 18 years leading up to 1997 was 735.4 mm. Floods tend to be the flash flood type.[372]

Moreover, the Thames is highly regulated, with a sequence of weirs along its length, which increases the speed of flow.

Possible technical options to reduce flood risk on the Thames are upstream storage, protective banks, dredging or a relief channel (R. Venables, 2005). *Upstream storage* to detain the 1947 peak, 500 m³/s, would require a detention area of 720,000,000 m², an area the size of Oxfordshire. The embankments along the length of the river are minor. *Flood banks* up to 2 m high were considered but it was realised landscaping would be a major problem and raised water levels would lead to increased groundwater levels leading to further flooding. River deepening and widening, the 'apparently simple options' (Fryer, 1999) would encounter environmental but also social hurdles, as it would require the removal of several islands. *Dredging* between Reading and Teddington (where the Tidal Thames starts) to allow for navigation also contributes to the drainage of floodwaters,[373] but after 1997, dredging up 100,000 tonnes of aggregate a year was stopped[374]. This was done in the full expectation that the new relief channel, the Jubilee River, would take care of the flood risk at a stroke – though as we shall see, it did not.

A channel option was deemed most acceptable from an environmental standpoint[375] Yet, in the selection process, at first the Environment Agency seemed willing to consider *non*-structural approaches to Maidenhead flood defence, such as flood proofing. This was a relatively new idea in an environment where flood infrastructure is the norm.[376] Penning-Rowsell, Winchester and Bossman-Aggrey of the Flood Hazard Research Centre were commissioned to look into (cheaper) alternatives which effectively implied a non-structural approach: flood proofing of each individual property, constructing bunds around each neighbourhood and around the main built-up areas. While their alternative would be substantially cheaper in capital cost than the £83.5mln of the prevailing option at the time, the authors grant that non-structural measures entail other, social requirements: individual effort (sandbags, flood proofing of buildings) and more community support for their maximum effect (Penning-Rowsell *et al.,* 1987). Also, continuous information and education is required, which may be costly. The 'non-structural' report was never formalised and summarily dismissed for 'arriving too late', although 'cold feet' on the part of the project initiators may also have played a part (interview, EA officer, Reading).

How did the National Rivers Authority, the forerunner of the Environment Agency, come up with this particular channel? In all no less than 29 alternative scheme elements with 492 possible combinations of channel routes were considered (Fryer, 1999).

The NRA commissioned Lewin & Fryer, a well-known U.K. consultancy (now part of Black and Veatch), to select 10 alternatives. Given the weight of economic considerations, the channel should follow the shortest route, and limit the number of structures (Eton College Presentation by J Gardiner and G Fryer, 1998). The last and cheapest alternative out of the ten was selected in 1987. While the report provides technical and economic reasons (practicability and cost) to justify this option, a consultant admits that 'potential solutions came into your mind *conditioned* by the strategic views of the NRA' (int. 5, MWEFAS consultant) on east-bank (or north bank: R. Venables, 2005) channel. For a time, a west-bank channel through the centre of Maidenhead was favoured, a section that was currently 'extremely unattractive' and, unlike the East bank variant, mostly contained gravel (Lewin and Fryer note to Gardiner, 12 April 1988). Residents in Taplow and Dorney, which would be affected by the channel works, were in favour of this alternative, but objections from the National Trust and cost factors counted against it.

8.5.1   *STANDARD OF PROTECTION (SoP): HOW SAFE IS SAFE ENOUGH?*

Underlying the cost-benefit ratio for the Maidenhead scheme was the extent to which the scheme would reduce the return period of damaging flood from the local 5-year return period, which the EA deemed 'unacceptable'. The eventually selected scheme was to a still modest 1 in 55 year standard. Any protection level under 1 : 75 may be too low even to qualify for insurance

(Crichton, 2005)[377] - flood protection standards in the United Kingdom are uniformly set at 1 in 100. In Scotland, flood defence grants are not given for anything under 1:100. The Maidenhead scheme was never going to meet that standard, either.

While these could be brushed aside as technical debates, the more pressing psychological problem is the acceptance of residual risk by the project beneficiaries. When project leader Colin Martin admitted - in conformity with EA policy - that the 'possibility of floods [is] not entirely ruled out', Alistar Forsyth of Taplow (then parish chairman) expressed horror: 'There was never, ever any suggestion that it [the scheme] would *not* eliminate flooding in the Maidenhead area' (emphasis added).' Such a zero tolerance perspective of flood risk has an impact on the risk and responsibility issue, which will be discussed at the end of the chapter.

The second channel

John Gardiner's vision was to connect planned gravel developments on the Thames such that they did not just result in a bypass for Windsor, Eton and Maidenhead but also further down for Datchet, Wraysbury, Staines, and Chertsey (DWSC). His view was that the 'quality and quantity of a catchment's water environment is determined by land use'. While the MWEFAS scheme had 'nothing to say about the management of the floodplain' (Gardiner 1996), the Datchet extension would become the UK's first floodplain management plan (FMP) (*Imperial Engineer,* 2005). A flood study for this areas was carried out in 1992[378].

While most options for this stretch involved channels of various lengths, a fifth option proposed reprofiling a section of the Thames between Datchet and Wraysbury (see Table 8.5, below; Option 1). Digging out the riverbed by up to 1 metre[379] would avoid the need to create a channel. MAFF, expected to contribute 15% to project costs, proved reticent to spend this money for either project unless there was overwhelming support. The DWSC stretch failed to clear the cost-benefit hurdle:

'all the options turned out to be marginal. In the end it never happened, the benefit-cost ratio was not there, it was below 1.' (interview, consultant)

Here, too, public hearings were held, which attracted few stakeholders. As we shall see below, this stance also summed up the role distribution on the MWEFAS scheme. This caused a lot of modifications to the original alternative.

8.5.2 CONVINCING LOCAL STAKEHOLDERS: NO TAXATION WITHOUT CONSULTATION

'Look, I've got a lot to do, let the engineers tell us what the options are and we'll say what we want.' (local fisherman, 1992)

This section looks into the nature of the participatory process for MWEFAS and seeks to explain how the project came to be conflictive from the start despite the EA's best efforts to be inclusive and open. This was not self-evident: Green and Tunstall (2003) call the planning process in Britain 'secretive' while Cosgrove and Petts (1990) warn that 'the link between water management and power remains unbroken.[380] Perhaps in part necessitated by the EA and its predecessors' limited mandate and means, the idea for the MWEFAS was to enable a greater extent of prior *stakeholder consultation and openness*.
Due to the absence of a powerful mandate, Gardener's team realised the Agency needed an inclusive strategy to pull the project off. This section looks into the nature of this participatory process and seeks to explain how the project came to be politicised from the start despite the EA's best efforts to be inclusive. Gardiner's team sought to close the gap between experts and stakeholders by designing a public participation process.

TABLE 8.5   The five options for proposed Datchet channel

Option	Works	SoP	Problem
1	Major reprofiling of River Thames with no diversion channel	1: 18	Loss of ecology and impacts on aquatic biology, fisheries and water quality.
2	No works to the River Thames with (~40m) diversion channel	1: 20	Need for landfill removal; impacts on groundwater quality.
3	Minimum works to the Thames with medium channel (~50m)	1: 40	
4	Significant works to the Thames with major channel (~60m)	1: 65	
5	Extensive works to the Thames with extensive channel (~70-80m)	1:100	

What kind of participation were the NRA-EA seeking? As Arnstein's Ladder below shows (Table 8.6), there is rather a marked difference in power sharing depending on what form of participation you privilege.

TABLE 8.6   Arnstein's Ladder of participation (Arnstein 1967)

8 Citizen Control	Stakeholders handle the entire job of planning, policymaking and managing a programme.	Varying degrees of citizen power
7 Delegated Power	Citizens holding a clear majority of seats on committees with delegated powers to make decisions. Public now has the power to assure accountability of the programme to them.	
6 Partnership	Power is in fact redistributed through negotiation between citizens and power holders. Planning and decision-making responsibilities are shared e.g. through joint committees.	
5 Placation	For example, co-option of handpicked 'worthies' onto committees. It allows citizens to advise or plan *ad infinitum* but retains for power holders the right to judge the legitimacy or feasibility of the advice.	Varying degrees of tokenism
4 Consultation	Attitude surveys, neighbourhood meetings and public enquiries.	
3 Informing	A first step to legitimate participation. But too frequently the emphasis is on a one way flow of information. No channel for feedback.	
2 Therapy	Both are non-participatory. The aim is to 'cure' or educate the participants. The proposed plan is best and the job of participation is to achieve public support by public relations.	Non-participation
1 Manipulation		

Fordham (1998-99; quoting Sewell 1974) notes an alienation between engineers and the general public, as it is engineers who define the problem and select the options. Traditionally few stakeholders were consulted beforehand, so that if no one complains, decision-making can be swift. Projects were presented as a *fait accompli* package, so that NGOs and local citizens had to make a big noise in order to exert some influence. Since the 1980s however there are more statutory consultees for new projects such as Roads and Highways, the Royal Society for the Protection of Birds and English Nature. From its instatement in 1989, the project team held five years of talks with the mandatory consultees such as the Royal Society for the Protection of Birds

(RSPB) and English Heritage and other environmental and conservation groups. One result of this was that English Nature was contracted to oversee the tree felling programme for MWEFAS, in light of the project's environmental ambitions. At the time, this process was lauded as progressive.

While the statutory stakeholder consultation rules prioritised intermediate civil-society groups, information sessions were held with local stakeholders as well. The fact that these hearings were held *before* any public enquiry was new to Britain, but several stakeholders nevertheless felt caught as they were consulted *after* the decision had already been taken. FHRC surveys found that stakeholders would like to be consulted on a number of options rather than just the one the project initiator prefers (Tunstall *et al.,* 1994 q. in Tunstall and Green, 2003)

Gardiner and his team however maintained that you 'cannot promote 101 alternatives´ (...) project development cannot be totally open, protocol has to be maintained. Professionalism, customer-orientedness and careful advertising sells a good product' (Gardiner, 1992). Thus, when a local survey of local attitudes towards the scheme was commissioned to Middlesex Polytechnic (now University),

> '(t)he Environment Agency were very difficult about the questions we could ask. There are some very peculiar questions in there. We felt it was better social science if we asked them [= the respondents] about different options but they [the NRA] wanted to ask about the preferred option. But they got into trouble over this, as expected.' (interview, university researcher, 2001).

The survey showed that people did not share the NRA's view that the MWEFAS project area was neglected and in need of environmental gentrification – they valued the landscape as it was. Nevertheless, the EA felt that the locals would be on their side if they recognised the extent of the threat. To sell flood protection you have to sell the idea of flood danger. 'Memories are short' (Gardiner, 1990) - therefore the project's public information documents constantly reminds readers of it in its appeals for support. The EA's 1997 leaflets (*Protecting your homes*) emphasise the 50th anniversary of the 1947 flood almost as if it were a cause for celebration.

Significantly, after the 1998 floods his colleagues at FHRC (where he had meanwhile been appointed professor) criticised this approach in their submission to the: 'it is (...) not the Agency's function to promote schemes but to determine whether any scheme is justified and to identify the best option available.[381]

It should be noted that Gardiner's interpretation of 'promotion' has a wider scope than selling an innovation to the public. A project initiator has to invest heavily to persuade the planning committee at county level. This is no different for the EA, whose flood works affected the integrity of the Green Belt. Gardiner notes that while planning authorities are easily outfoxed by developers, the Agency has to play fair:

> 'The cost to promote schemes of this size is 10% of the total cost before you even start. You need that amount to go through the planning process. *If you ask: where did we go wrong, this is it.* If a developer starts it he puts in 2 identical applications. He negotiates with the council with one of them. If the council hasn't determined in 14 days it's a nondetermined application. That effectively forces it into a public enquiry for DETR determination. Sometimes it's a public enquiry, sometimes it's a written representation, but for structures of this size it's a public enquiry. It can get extended and extended forever. Either party can refer it to the Minister to call it in. Most Local Authorities don't like public enquiries - they have to foot their own bill. Planning applications get through because the LAs run out of money. It can take tens of thousands of pounds.
> Meanwhile for the second application they talk to the local authority. For example Reading fought them twice for the detail, by the third one Reading Borough Council gave up. They reckoned it's gonna happen anyway, this is the best of a bad job.'

We will encounter the regional planning authorities further down, as the planning application with Buckingham Council is discussed.

Clashes with Eton

So far, I have mentioned issues that could be solved by relatively minor accommodation. The NRA also had to contend with hardy and skilful adversaries who were not easily swayed. When the preferred channel option was selected (at that time it was still to protect Maidenhead only) and the general public consulted on the basis of the NRA's 'preferred outline scheme' in 1987, such 'details such as the precise route were still under consideration' (Tunstall and Green, 2003: 42). Eton College was first off the block to send the Environment Agency back to the drawing board over the stretch of the canal that crossed its famous playing fields, known as Agar's Plough. It had to resite a dog kennel and save a prehistoric site there[382]. Eton would not accept a £1mln drain under its 'hallowed' playing grounds, which necessitated an £8mln detour for the Maidenhead channel. The College was not swayed by the level of protection the channel would provide the college itself: Eton is situated in a more elevated area and therefore less flood-prone: 'we held out in 1947, so we'll hold out now' (interview Eton, 2000).

While *territory* (land take) at first glance seemed to be an issue with Eton, in fact the land take was much more framed in terms of scenic and cultural values of a history-laden area. Eton is part and parcel of English national heritage, the college proudly claims it is older than the royal family. Its lofty heritage made its playing fields 'hallowed ground', where Prime Ministers had played rugby, and gave rise to the famous (if historical dubious) quote attributed to the Duke of Wellington: 'The battle of Waterloo was won on the playing fields of Eton.' To touch the playing fields was to touch the core of the college's identity.

Eton also did not accept the compulsory purchasing order (CPO), which forces a landowner to cede land to carry out public works. The College refused to abandon the rights to the land even temporarily, and was prepared to take its fight against the CPO up to the High Court[383], questioning the Minister's ability to confirm the Order. It would have taken an Act of Parliament to force Eton to comply.

By way of compromise, Guy Roots, Counsel for the National Rivers Authority, suggested splitting the scheme up into two schemes, one for the Maidenhead area, one for Eton and Windsor 'as the more controversial route passed through the latter area. This would have the advantage that the whole scheme would not collapse if not given parliamentary approval'[384]. This alternative was dismissed and the College won the court case[385].

More prosaic economic interests may have played a role here. Eton College planned a 150ft, GBP 10 million Olympic rowing channel[386], which was to be built simultaneously with the Jubilee Channel. The gravel from two projects would flood the construction market with quarrying material and depress the fetching price. Because gravel disposal from two projects, MWEFAS and the rowing lake, would flood the market with gravel, a deal was struck that the Jubilee River would be dug first, and the Eton Rowing Scheme at Dorney after that, by the same consortium[387]: Eton Aggregates, formed by four quarrying companies: Lafarge Redlands Aggregates Ltd, RMC, Tarmac and Summerleaze, "an excellent example of co-operation within the quarrying industry for the benefit of the wider community".

However, relations between the NRA and Eton over MWEFAS remained strained when in 2001 Public Hearings were held over the newly adopted Planning Guidance (PPG 25), which laid down flood contours within planning for development was to be constrained. Eton expressed scepticism about the EA's ability to provide adequate information, citing the MWEFAS episode as evidence:

> 'I am afraid to tell you that in our recent dealings with them (the Agency), they have been less than helpful. The EA has consistently refused to release information about the effects of the Maidenhead scheme. They simply will not tell us what the flood levels will be when the scheme becomes operational….. I suspect that the EA may not have the available expertise or resources to properly undertake the role as anticipated in PPG25' (Eton College, 2001, during the second consultation for PPG 25).

Parish protest

The rowing lake issue brought in another player: Dorney Parish Council. The parish councillors were fighting a 'trench war' with Maidenhead's local authority as Eton College's Olympic rowing channel (Dorney Lake) was to be routed across the common in Eton Wick and Dorney. The Maidenhead scheme again would pass through Dorney Common. Two channels so near to each other seemed too much of a good thing in terms of nuisance from construction.

'We knew that the Dorney Common plan was unpopular but when we were only planning to protect Maidenhead there was *no other route* economically or environmentally viable Extending the scheme to Windsor made it possible to rethink the whole route.' (Jean Belcher, Thames Water, my emphasis)[388]

In response a new version of the flood diversion project was proposed, extending the Maidenhead (7,000 at-risk properties) to Eton and Windsor (8,000 more). This enabled the protection of a sum total of 15,000 at-risk properties. The window of opportunity resulting from the need to replan the channel also created an opening to address some complaints: The extended channel would 'not now skirt the south-west side of the village in full view of many residents' gardens as was originally feared' (ibid.).

Dorney was not the only parish councils displaying considerable activism. For *Taplow*, just upstream of Maidenhead where the MWEFAS channel begins, the struggle against the MWEFAS was part of a long 'fight' against various infrastructural schemes, such as an extension of the M4 motorway and a fifth runway for nearby Heathrow Airport.

Taplow parish council were among the 'hundreds' of local people voicing complaints which later led to a Public Inquiry of 1992. They were especially worried about Taplow's historic gardens. While floods are usually seen in quantity terms, they bring pollution into people's houses, too - 'The residents of Taplow do not want Maidenhead's dirty water´[389]

Parish councillors are volunteers. The 'tonnes' of evidence amassed by the EA made local stakeholders feel outgunned. Taplow faced a 'battery of lawyers´ and a roomful of evidence, while it itself could only hire a very junior barrister.[390] But Taplow Council had its day when the Maidenhead flood scheme was first discussed in the House of Commons:

'A county councillor at Taplow Parish Council also acts on the Flood Development Committee so they had a little inside info about what was going on, and using that to wind everybody up. I think they overstepped it, lobbying their MP like crazy. (...) On 9 November, I went to the House of Commons. Every MP can start a adjournment debate at the end of a day. One name out of the hat can raise every subject he liked. Tim Smith (Cons) raised it. We had been primed so it wasn't wholly unexpected. He brought the audit office in to audit the scheme twice. It didn't seem nice at the time but it was quite nice later because we got a clean bill of health.' (interview, Taplow Parish councillor)

Bucks County

The above protests reflect the issue of ´nuisance distribution´: Dorney and Taplow parishes claimed the risks and benefits of the project were adversely skewed towards them. A similar issue emerged at county level. The flood relief channel is routed such that its bulk would end up in Buckinghamshire to save a population concentration in high-damage flood-prone areas in Berkshire[391]. The county of Berkshire supported the project in the name of progress, while Buckinghamshire opposed it in the interest of landscape conservation.

Buckingham County voiced objections based on landscape values. Since it was the policy of Buckinghamshire County Council not to grant permission for the extraction of minerals in the area affected by the proposed flood relief channel, the County proved an important adversary. The council argued there was no pressing *need* for development in the Green Belt (interview, Buckingham Council officer). Bucks County could go along with a lesser scheme for Maidenhead, but worried about the impact on the landscape. The authority commissioned a

consultancy to come up with smaller-scale alternatives which aimed to minimise impact on the landscape. In fact Taplow parish, too, fearing damage to its historic gardens, commissioned a report with a design for a smaller project. Both bids for a smaller scheme were dismissed by the Agency on practical grounds: 'If you want to do half the channel width, you don't have less land take' (interview, EA officer).

> 'Apart from the channel itself, there was lengthy controversy over the nuisance from and disposal and valuation of aggregates, especially gravel (see above, in the benefit-cost section), which again opened up a choice between alternatives. The NRA had sought to pre-empt this issue by constructing most of the bridges over the channel before it was excavated, which made it possible to move excavated material along the channel and out onto major roads, 'rather than create congestion, nuisance and environmental damage along minor roads crossing the Scheme' (R Venables, 2005).

A key issue was who was to transport the aggregate from there, by what means of transport. Strong contenders for the contract were ARC Southern (Greenways) proposing transport by railway line, which was thought to be more environmentally sound. Parliamentary questions (16 December 1998) urged Her Majesty's Government to look into this option. Yet the rail haulage option has seen strong opposition from Dorney and Marlow councillors. Dorney council, complaining of 'intolerable noise from haulage', went on to portray the Environment Agency as 'uncooperative and uncaring'. Yet team leader Colin Martin claims he had no complaints from the council (op. cit.), suggesting the parishes' bark was much worse than their bite. Although ARC had obtained planning permission for importing the minerals from the Scheme into their pit at Sutton Courtenay, Oxon, they did not get the contract after all. Nuttall's removal bid by *truck* turned out to be more cost-effective. A GBP1 million conveyor belt enables transport on the river Thames saving residents lorry nuisance[392].

The Public Enquiry

Given the limited mandate and low enforcement of floodplain development controls, it is not so surprising that the NRA/EA has placated stakeholders rather a lot, with a view to 'keeping the peace'. As illustrated by the above saga of Taplow and Eton the Environment Agency proved to be inclined, if sometimes under pressure, to take many local objections into account. Environmentalists were co-opted by modifications to facilitate badger traffic, provide for alternative bat roosts and the isolation of a contaminated area at Manor Farm.

The EA's Project Team was prepared to go quite a long way to obtain the planning application from the counties involved by negotiation with stakeholders. But in light of 'hundreds' of complaints the planning application was refused, and an appeal had to be made to the Secretary of State who 'called it in'.

The NRA had to organise a public enquiry before an Inspector of the Planning Inspectorate, held between 20 October and 17 December 1992 at Reading. The inspector called on to assess the Maidenhead scheme, David Bushby, was a MAFF appointee. Tunstall and Green (2003: 34) notice that public inquiries in other types of infrastructural project (e.g. roads and railways) in the UK have been formalities, ´no project has ever been turned down.´ But in flood defence, earlier cases brought painful defeats, so the NRA knew it was not going to be an easy ride. In the UK, public enquiries have been dominated by the 'public interest' (as defined by the government) rather than an ideology of participation - government reckon most opponents to act in their own interests (Norton, 1994) and see no need for publicly funded protest as found in the Netherlands. Stakeholder interest shown was far from overwhelming, though, enabling the public enquiry to be cut from 16 to 8 weeks.

The Inquiry led brought several minor amendments to the scheme, as well as a firm promise that downstream Datchet would not be suffering from the channel, now that the MMWEFAS would be going ahead but the Datchet extension would not. It is indicative of the NRA's approach that it managed to persuade one of the project's fiercest critics, the independent

Taplow parish councillor Ewan Larcombe, that the Enquiry might have been 'one-sided' but 'scrupulous and fair' (Larcombe, thamesweb posting, 29.03.04). After the Inquiry, the EA continued to make significant amendments, such as changing the timing of traffic lights to reduce traffic tailbacks due to the temporary M4 motorway diversion (*Maidenhead Advertiser*, 18 June 1999; interview Taplow Parish, 2001). Such amenities could come in handy as a bargaining chip: in case sand and gravel transport by lorry were not accepted, there was also not going to be a new roundabout for locals affected by scheme ('Gravel pipeline backed').[393]

The only group left empty-handed seem to be boating enthusiasts, who expressed unhappiness with the limited navigability of the Thames River. No money could be found however to put locks in the weirs to make the Jubilee River navigable, which would be difficult anyway due to the varying channel depths (R. Venables, 2005).

8.5.3   *THE 1997 REVIEW: REOPENING THE FRAME ONE MORE TIME*

'11. Beware cost reductions that masquerade as value engineering'
(Dodds and Venables 2005)

In spite of all concessions to stakeholders, the MWEFAS project went through crunch time in 1997 when it was time to finalise the agreements for channel construction with the contractors The negotiation of 'Contract 6' with the contractor, Balfour Beatty, in light of the project's spiralling costs had caused almost a full year's delay.[394] This quiet crisis (it did not reach the press and was not mentioned in the interviews) came to light years later when MWEFAS project leader Colin Martin revealed the meeting to project critic Ewan Larcombe of Taplow. According to this information (Larcombe, 2005)[395], Balfour Beatty proposed an alternative design. Along with five other cost-reducing modifications, such as a trapezoidal channel instead of rectangular one, the contract included a 'value engineering' clause that promised further cost reduction. The Environment Agency, the Designers, and the Construction Contractors got together for a one-day 'Value Engineering Workshop' away from work, to discuss whether and how to change the design of the Jubilee River. This *opened up* the project frame rather drastically: a 'divergence' ideas phase included suggestions not to have a channel at all, or to build a large-diameter pipeline. A few weeks later, the Design Change Group whittled down the list of possibilities to about 10 items. At a second meeting, technically viable and (expected) cost-saving alternatives were selected.

Thus, one may legitimately wonder if the Jubilee Channel, held up as an excellent example of the Royal Academy's sustainable engineering principles 2 ('innovate and be creative') and 3 ('seek a balanced solution') had not sinned against principle 11 (' avoid cost cutting masquerading as Value Engineering'). Whatever the driver for this rethink, the new approach was to become controversial after the Thames flooded in 2003.

8.6   FLOODS AT LAST

8.6.1   *THE 1998 AND 2000 FLOODS*

´This is not a time to blame. If you are on the Titanic and you have hit an iceberg, you focus on getting everyone off before you shoot the captain´ (Horton and Wraysbury councillor quoted in Terri Judd, ´You can´t stop it, so you get your stuff out of the way´, *The Independent*, 25 July 2007).

It was noted above that the EA often had to take recourse to sell the project to its intended beneficiaries, verbally and pictorially, to the floods of 1947 and 1974 (*Protecting your homes*, 1997). No one died in these floods; the level of 'threat' concerned shock and discomfort rather than

danger. The 1990 floods helped put high water on the policy agenda but had smaller impact. This was only to change when the UK experienced a run of flood events at the turn of the century. Since major floods had not happened for five decades, the Environment Agency did not give this policy area the highest priority during its first few years of its existence. When the police, who were charged with flood warnings, unilaterally shed this task (Crichton 2005), the EA felt compelled to take over the responsibility for flood warning in 1997, so it was understandably ill-prepared for the job when floods hit England at Easter 1998. The flood warning did not reach many people it should have. The EA was subject to fierce criticism for the mismatch between those actually warned and those in need of a warning. In the 'Bye Report', the parliamentary Easter Floods Review Team lambasted the 'complicated, confusing for the public and regionally varying arrangements'[396]. Had the 1998 Easter Flood, in which five people were killed, been seen as national disaster, the ensuing public outrage could have empowered the Agency as a national flood managing institution.

Nevertheless, the Minister reacted to the Agricultural Select Committee's inquiry (House of Commons) into the 1998 floods by setting high-level targets that included a supervisory <u>duty</u> for the EA. According to Jean Venables, the Chairperson of the Thames IDB, 'no one knew what it meant so nothing was done about it until recently. Now we're collecting information from other authorities to see what isn't done. Some didn't even knew they had it (..) 'Defending properties is not a must-do - There is no legal responsibility; most of it [= flood protection] is permissive. No heads will be dismissed if we don't.' (J. Venables pers. comm., 2000) [397]

In November and December 2000, heavy rains again caused floods in England, affecting some 10,000 homes. The MWEFAS channel had been excavated but not yet connected to the Thames so that the Channel could not be of much help in withstanding that year's winter floods. After these events, attitudes on risk and responsibility started to change rapidly (Johnson, Tunstall and Penning-Rowsell, 2005). The EA got its chance to be stricter on floodplain development The precautionary principle (flood warning, self-help) and land use planning/development control were the core of the 'PPG 25' (Planning Policy Guideline) issued in 2001 in response to the Y2K floods (Tapsell *et al.,* 2005). This guideline sought to restrict development of the floodplain inside the contours demarcated in the flood maps provided by the Environment Agency. Insurers take these flood maps as an indicator for the 'insurability' of properties. But short of a national disaster event it will be impossible to evict or buy out the people who already occupy the floodplain.[398] PPG 25 will therefore likely only affect *new* developments.

Meanwhile, pressure for intervention mounted both from the private and civil-society sector. The insurers' umbrella organisation, ABI, put a moratorium on flood coverage until 2002, urging the government to review its commitment to flood protection, as the insurers could not 'keep subsidising' losses of this scale (some GBP200 million) (Huber, 2004). The ABI qualified its definition of what constitute 'exceptional circumstances'. so that it does not have to provide cover for lack of 'sustainable defences'). The flood premiums would go up according to historic damage, shifting responsibility to homeowners (Huber, 2004). A 'flood tax' on properties was proposed, but eventually rejected.

This move forced the government to speed up its flood defence efforts at a time EA budgets were eroding. Disappointed citizens had expected much more of the EA in terms of structural defences and flood warning than it could muster, and – as we have seen – more than it was even mandated to provide. The discrepancy between governmental capabilities and citizen expectations, as well as a discrepancy between perceptions of who caused what, came to a head in 2003, when Datchet, Chertsey and Wraysbury suffered major flood nuisance.

8.6.2   THE CHANNEL'S INAUGURATION AND THE 2003 FLOODS

By the time it opened in November 2001[399] the Jubilee River had cost GBP 110 million. Consultants Lewin & Fryer, Nuttall and Balfour Beatty won plaudits for their 'soft engineering' approach, which was seen as the way forward in flood relief. The Royal Society of Engineers singled the project out for its Hambley medal in 1998, it won the ICE Award in 2002[400] and the Royal Town Planning Institute Award for Planning for the Natural Environment that same year.

Good press was also generated by a spectacular crossing under the M4 and the Western Region Railway (Walford, 1998). To enable traffic moving at all times, the culvert structure was frozen, then jacked underneath the bridge in 1999 to allow the river underneath a Victorian railway embankment. The preservation of another Victorian railway, Black Potts viaduct, which leads up to Windsor Castle, also attracted attention.

The costly modifications can be said to have been successful in Public Relations terms. Satisfaction with the resulting environmental enhancements seems high, as epitomised by one interviewee who had rejected the project first but proudly showed me round the project gushing about how nice everything looked.

But was the channel also ready to withstand the next high-water event? Because the channel is not lined with concrete, it depends on vegetation for river bank stability. It appears that bank vegetation had not yet settled as the Thames started to rise at the turn of 2003 (R. Venables, 2005). Over the New Year, signs of erosion started to show in the banks of the Jubilee River and the cycle path progressively fell into the stream. Environment Agency workmen carried out stabilisation works with bags and stones and inflow was temporarily reduced to 144 cusecs. The EA had closed the radial sluice gates at Taplow, as the waters started to rise in the biggest flood since the Great Flood of 1947. A 'Severe Flood Warning', denoting danger to life and property, was issued. On 4 January the sluicegates were opened again to prevent Maidenhead flooding. According to procedure:

'(t)he Jubilee River is operated when the flow in the River Thames at the Old Windsor Weir in Wraysbury exceeds 190m³/s. When that occurs 20m³/s is diverted to the Jubilee River. As the flow in the River Thames increases, the flow into the Jubilee River is increased in steps of 15m³/s.' (JMP report 2003).

This allowed the water in the channel to rise at what the Agency claims to be 'a very, very gradual rate'. Opponents claim however that the increase allowed the flood level at Windsor to rise to 320 cumecs (140 cumecs above the target flow) much too fast, and to contributing to flooding nearly 130 properties in Datchet downstream because the flood water travelled faster between Maidenhead and Datchet than pre-Jubilee River and seem to have been a cause in breaching the bank of the local Myrke Ditch.

Thus, while 1000 properties were saved – only one low-lying flat building in Maidenhead was affected - 128 were flooded 6 miles downstream in Datchet, a parish under the jurisdiction of Maidenhead and Windsor Borough. Chertsey, which falls under Runnymede borough, also flooded, in part due to the (un-dredged) local river Bourne, a tributary of the Thames. In addition to downstreamers, the parishes of Marlow, Bourne End, Bisham and Cookham, just upstream from the Thames bifurcation, also blamed the Jubilee River for the floods (JMP, 2003) The local MP; Michael Trend, said: 'People who live upstream of the beginning of the scheme feel intuitively—I hope that this is not an urban myth—that there may have been a bottleneck effect', (Parliamentary question, 13 January 2003).

In response to the shock of being flooded, there were calls for a public inquiry, to clarify concerned questions about the effect of the Jubilee River. To the disappointment of downstream parishes but also Maidenhead council[401] the EA felt a new public enquiry would take too long and cost too much. Instead, the Agency instated an Independent Commission in January 2003, to be headed by a senior engineer, Clive Onions, to publish a report for three yet-to-be established

FRAGs[402] (Flood Relief Action Groups, now called Thames Flood Teams)[403] which he was to chair. These FRAGs are made up of Local Authorities, Representatives from affected communities and other relevant Agencies. Two community action groups had meanwhile formed, The Upstream Group (TUG) and ThamesAwash. Together with the River Thames Society's Flood Committee they applied to join the FRAGs. Maidenhead´s local authority rejected this, but accepted their participation via two Community Support Groups, and be chaired and represented on the FRAG by two Parish Councillors, appointed by the Council.

The Onions report concluded that 'the flooding was (...) exacerbated by loss of the floodplain at Maidenhead, Dorney and Eton Wick and by the cessation of dredging since 1993 for economic and environmental reasons, which reduced the river capacity over time.'[404]

The EA also organised FRAG Open Days. During one of those 'road shows' at the Borough of Spelthorne[405], the EA admitted the Datchet banks could also breach and need reinforcing. Ewan Larcombe (Chairman of Datchet Parish) questioned the openness of the FRAGs, feeling the Open Days were a cover-up. Larcombe called for the immediate closure of the channel by welding the gates.[406] Later, he insisted the Agency should seek full planning application for the repair works near Datchet. That same month there was still a concern that angry citizens of Wraysbury, 'decimated' by the 2003 flood, would disturb a council meeting about the issue.[407] Further anger ensued when it became clear the next month that the ´independent´ FRAGs chairman, Clive Onions, was in fact a senior associate of Arup consultants who were involved in the design of the Jubilee River as a subcontractor.[408]

The affected local authorities did not await the Onion reports. A report by JMP Consulting was commissioned by the Royal Borough of Windsor and Maidenhead together with Spelthorne, Elmbridge, and Runnymede Borough Councils (JMP, 2003[409]). JMP concluded that rainfall in 2003 was significantly higher than in 2000, but not extreme – more such floods can be expected. When citizens of Spelthorne, Elmbridge and Runnymede were interviewed for the independent JMP report investigating the flooding of 2003, a great majority of the respondents blamed the Jubilee River (ref. Report). But JMP concluded that at most 10% of the effect on Datchet can be attributed to the Jubilee River.

This finding did not rehabilitate the flood scheme, though. The most damning report was drafted by structural engineers from WS Atkins, environmental consultants. They found in 2004 that the Jubilee River´s banks were too low and too steep, and that inappropriate materials were used.[410] Up to 700m of embankment was 'A1', that is, in need of immediate replacement. Only 35% were 'erosion-proof'. Also the report criticised the use of non-standard procedures which made response to floods unpredictable. To Atkins´ surprise, a stilling basin (to dissipate energy from high waters) downstream of radial gates was missing at Taplow, the weir's apron came loose and almost all structures were found flawed.[411] It concluded that even at the best of times, the Jubilee River and the Thames can together carry just 325m^3/s, 63% of the original design specification. After completing the works, the channel will still be 10% below design capacity. Yet Ian Tomes of the EA feels the agency has done all it can, short of starting a whole new project.[412]

The report also claimed the Lower Thames model for the Datchet-to-Wraybsury stretch was flawed and should have estimated downstream levels by 30 cm higher. "The news has shattered our confidence in the entire scheme", commented Maidenhead local authority cabinet leader Mary-Rose Gliksten. No wonder - as a consequence of this embarrassing episode, the EA found itself compelled to review the flood contours which form the basis of PPG 25, reclassifying 'areas that it previously described as safe from flooding as being back in the floodplain' –which was bound to have restrictive effects on allowable planning permission in Maidenhead, notably in no-more-safe Cookham, and on flood insurance rates. It became clear that the 550 cumecs design capacity would not be realistic – especially while climate scenarios predict 20% extra rainfall.

The Agency's initial reaction was still soothing: the EA had it be known that '(t)he Flood Relief Scheme is not a failure'[413]. Chris Birks, EA manager, responded to citizen complaints that it's a

'learning process' but 'you can't countenance going back to straight sided trapezoidal channels', meaning a return from soft engineering to hard engineering. However, in 2006 the Agency decided to concede defeat[414] and file a suit for damages. Given the complex management structure (some 30 consultants involved), it is not easy to assign liability to anyone but the Agency decided to take their engineering consultants, Lewin and Fryer, to task.[415] The matter was settled with an out of court: Fryer & Partners will have to pay £2.75mln in damages.
[416]

New lease on life for integrated river plan?

The flooding of Datchet and Wraysbury also reopened a window for John Gardiner's original vision of a second channel. EA promised to investigate the feasibility of the second channel down the Thames, as part of a new River Thames Strategic Flood Defence Initiative. The original five options for a 16km extension of the Jubilee Channel tabled by Gardiner in 1992 were compared with a do-nothing and a do-minimum option[417]. But the cost of these options had meanwhile tripled (in 2004 sterling) and would now range from GBP92 million (river reprofiling) to 248 million (different lengths of channel)[418]. The editor of Thamesweb believed DFRA would rule the scheme out principally because not many people would be expected to die in the event of the Thames flooding and secondly that houses on the Thames do not qualify as belonging to the socially needy.' (Thamesweb). Indeed while options 2 to 5 were thought to be economic, the new report concluded that only a 'do-minimum option' would attract DEFRA funding in light of the Ministry's grant standards.[419] Indeed the scheme was rejected on the basis of a low Defra priority score. In response, the Thames Flood Forum, a Berkshire flood action group said it could cough up the GBP200 million needed for such a scheme itself.[420]

The momentum for the second channel may have been sustained after the 2007 floods, the new Brown Government promised to spend a billion pounds a year on flood defence (by 2024). In response, Adam Afriyie, Conservative MP for Windsor, asked the Environment Minister, Hilary Benn, in Parliament session (20 July) to reconsider the lower Thames scheme.[421]

It is interesting that the debate has backgrounded the fact that Datchet itself has done little to reduce its exposure to flood risk. While Datchet never actively promoted floodplain development, Neil and Parker (1988, see also Parker, 2000) had taken the Local Authority as well as the Department of Environment to task long before for poor recognition and awareness of the risks from flood plain development there. The town had been safe from floods since 1947, and simply taken this safety for granted.

8.6.3 NAMING, FRAMING AND BLAMING

We can summarise the story of the MWEFAS in terms of contrasting *risk narratives* (see also van Eeten, 1997). Protecting a well-to-do area made it possible to use the scheme as a choice opportunity *to* enhance the area's environmental quality while still expecting a good cost-benefit ratio. This facilitated a discursive alliance between flood protectors and environment conservationists. As noted, this was a clean break with the existing disaster culture in which citizens had to rely on self-help. Contrary to Leiss and Chociolko's claim (1995) that actors will always seek to offload responsibility for risks, the Agency could see a clear benefit in assuming responsibility. Offering to 'protect your homes' raised expectations and responsibilities, which would also boost the Agency's standing and mandate in the policy regime.

In the 1980s, as in the 1930s, floods still seemed an ´Act of God´ (Frame 1, Table 8.7) in a country without a disaster culture. But flood defence without a zoning policy works as an incentive to build more, which is contradictory with the long-running NRA ambition to curb encroachment on the floodplain. Real-estate developers are keen to build in the floodplain, while

the local authorities of Windsor and Maidenhead have not exactly discouraged it. The lax enforcement of development on the river meant the value of properties to be protected helped tip the balance in the cost-benefit analysis in favour of the project.

This confluence of interests did not fit the NRA/EA's preferred storyboard. In the NRA story, the developers are the sometimes ruthless villains who expose the citizenry to unnecessary flood risks (the 'dragon'). Some Local Planning Authorities aid and abet the flood by their lax attitude, allowing the Thames flood plain west of Oxford to be developed. In this story, only the NRA can deliver the good people of Maidenhead, Windsor and Eton from this risk, but only if the LPAs stop fuelling the ´dragon´s´ expansionist drive. So, from around 1988, a new problem frame arrived on the scene, in which developers and LPAs were blamed for exposing riverine towns to flood (Frame 2).

The *niche* it found to accompany the self-imposed protector role was green technology and openness (participation). The National Rivers Authority perceived a heightened environmental awareness and recognised that a social support for 'holistic' flood management projects required a shift from technology-centered 'monologue' to stakeholder 'dialogue'. The NRA/EA initiative to hold public meetings - an 'iterative process of explanation and listening' (Gardiner, 1992) *before* protests were staged was a marked step ahead in the UK context, if no clean break with the paradigm. But while the MWEFAS was ahead of its time in stakeholder consultation, 'promotion' and placation after the decision had already been taken formed the mainstay of the EA perspective on participation. The protests continued and led to a Public Inquiry.

To support their case, local protesters adduced a different problem frame altogether (Frame 3): it was not so much the flood risk as the flood scheme that threatened the citizens. They also took very different view of the local cost-benefit ratio. The locals' ongoing counter-story sees the channel itself as a costly and ineffective monstrosity, despoliating the countryside and its historic and cultural values. What the EA saw as a neglected area, they saw as a thing of beauty (also Tunstall *et al.,* 1991). Several locals concede that infilling of the floodplain means increased risk, but the flood risk is something people have lived with for centuries, which makes them themselves the unsung heroes who 'keep fighting the scheme'[422].

When the Jubilee Channel plan was not extended, downstream stakeholders were worried that they would be more rather than less at risk in a flood event. They were promised in the 1992 Public Enquiry that they would not, but harboured doubts. When the EA's initial response to the 2003 flood however was to deny any problem in the structural design, their distrust in the Agency was vindicated. Seeing an 'imbalance of benefits and sacrifices' (see also Fordham 1998/99) they voiced concerns like: 'Wraysbury pays council taxes to Maidenhead and does not want to be sacrificially flooded for Maidenhead's safety.'[423]

Technical experts concluded that the bypass can only have contributed up to 10% to the extra flooding. Ironically, the Agency seemed to see the bank failure as an Act of God (problem frame 1) and put in place structural, remedial measures. 'Open Days' continued the promotional approach, while reducing public participation by refusing a public enquiry. It took until 2004 for the EA to admit that most (but not all) of the initial allegations were correct, after which the agency decided to hold the structural engineers liable, effectively passing on the blame to its subcontractors. As an inhabitant of Windsor commented on the EA´s insistence on blamelessness:

'I wish that someone would put up their hand up and say sorry, we made a mistake, won't happen again' (*You and Yours* programme, BBC Radio 4, 10 Oct 2005).

We can conclude that the EA´s increased role in flood protection created previously non-existent expectations, changing the flood governance scene in Britain. Speller (2005) wryly observes that public risk communication with communities may have brought about a process of blaming the government when something goes wrong, which previously would have been dealt with through self-help in the absence of any state responsibility or duty for flood protection. The

EA remains caught between rising demands for flood security and a shortfall of funds to supply it, although its flood budget is set to rise sharply in the aftermath of the 2007 floods.

The preferred way out for the Agency to handle flood governability seems to be a campaign for *flood acceptance*. A recent report notes that 'Communities need to be helped to accept a certain level of flood risk, to accept that they need to share some of the responsibility, and to accept that by designing spaces to flood safety ecological benefits will also be increased.' (Speller, 2005). A 'tripartite partnership' between citizens, politicians and public servants would be an appropriate a way of devolving power to citizens, 'sharing responsibility as well as rights to good environmental quality' as co-producers[424] (Skidmore *et al.*, 2003). This would indicate a move toward a new *model of governance* (sharing responsibility), which has yet to crystallise. One step in this direction is the 'Making Space for Water' document released in 2005, which promises to adopt an holistic, 'risk-based' approach and promises to 'involve stakeholders at all levels of risk management' (DEFRA 2005). It foresees Catchment Management Plans, longer planning horizons adopted, and EA will receive most of its funds in the form of grant-in-aid rather than from council taxes and IDB fees.

TABLE 8.7   *Competing flood narratives*

Who caused floods	What caused floods	What should be done?	Who should act?
1. Act of God	Extreme weather event	Self-help Arterial drainage	Floodplain dwellers Catchment Board
2. Act of Man	Floodplain development	Restrict development	Developers and LPAs
3. Act of the EA	Flood defence scheme	Stop flood defence	Government

8.7   CONCLUSION

When I started investigating the Jubilee Channel, it struck me that so little seemed to have been said and published about it.[425] Quizzed on this point in 2000, the project's initiator, John Gardiner, claimed this is because the scheme was 'non-controversial' and cites low turnout of consultation as circumstantial evidence (pers. comm. 2000). Given the largely successful bargaining during the planning stage sketched above, this assessment seemed obvious. A flexible attitude on the part of the initiators took away, or sailed around, many obstacles. But even at the time of the interview, 'non-controversial' seemed rather too rosy a view if we juxtapose an encouraging PR record with a High Court law suit, Parliamentary questions and a call-in by the Minister of Agriculture.

The Environment Agency took a considerable financial and political risk by initiating the Maidenhead bypass. It was planned as a relief channel, and as such was legitimised as a green security-enhancing project. However, as floods in Maidenhead are widely seen as a nuisance for the rich and famous rather than a life-threatening issue in this area, any security strategy was bound to risk opposition by perceiving more harm than benefits from it. The weak position of its initiator moreover presented a number of procedural and funding risks to the survival of the project.

Perhaps this weak position necessitated the EA to make (too?) many concessions to maintain a support base. The Agency managed to sway or accommodate important opponents by rerouting the channel and providing additional amenities, arguably also in view of the symbolic value of a successful precedent for further projects. When the scheme did not deliver on its first test, the

EA lost public confidence. The Borough of Windsor and Maidenhead remains the second most flood-prone area in the UK[426]. In response it developed a 'Building trust with the Community' toolkit to turn the anger of flood-affected citizens into something more constructive.

The floods of 1998, 2000, 2003 and 2007 cumulatively appear to have punctuated an equilibrium. Still, while the EA's flood-related mandate has been enhanced and it is actively seeking new projects, it remains constrained by relatively limited budgets and a limited mandate. In this sense, the 'revolution' did not happen.

Has the MWEFAS project as an innovation revolutionised the flood management regime and socio-technical landscape? The Agency certainly secured the niche it sought for it. Its green engineering approach has certainly widened the scope of flood management options. An opportunity can take on the same urgency as a problem when the deadline is tight. The availability of money can be the driving force or accelerator for the project. This can be a 'use it or lose it' outcome of budget negotiations. It can be argued that the Maidenhead scheme would not have been possible, or experienced great difficulty without the availability of national funds and regional wealth. Once the decision has been taken, it is very hard to stop an infrastructural project despite the spiralling cost.

A 'selling' rather than 'participatory' approach was opted for, which several stakeholders felt led to a foregone conclusion in the selection process. The consultation process, while rather flawed, was largely successful in persuading key stakeholders. Alternative options suggested by Taplow and Buckinghamshire County were discarded out of hand, while one developed by FHRC was never made public. Eton was more successful in 'bulldozing' significant changes in the plan invoking the sanctity of heritage. Stakeholders did not come forward with anything radically different. But while the project enhanced the EA's standing as an innovator, until the channel's collapse sent it back to square one, DEFRA is still dominant and has made it clear EA should concentrate on its operational role. The floods of 1998, 2000 and 2003 seem to have been more decisive in opening windows for reform in floodplain management and a review of the funding mechanism. The NRA thus appears to have lost some crucial battles but won the war: its vision of catchment management a floodplain management has arrived and established itself on the UK flood management scene. In that sense, John Gardiner can be satisfied.

Chapter 9: The politics of six river interventions – a Synthesis

'Security is not a number, it is a feeling', Huib de Vriend, a professor of civil engineering at Delft university, cited in *Technisch Weekblad*, 27 January 2007.

9.1   INTRODUCTION

Because they instil primordial fears in people, floods have strong securitisation potential. Securitisation legitimises swift interventions in crisis mode and the control or exclusion of particular actors from the normal decision-making regime. What is more: successfully linking floods with security changes the domain, tilting the power constellation towards security professionals and cutting out the politics. It gives unusual powers over the environment, over people and procedure.

What does securitisation mean in flood management and how successful are securitising moves in river management? Does it they strengthen or challenge the position of the leading actors, does it change the way things are done? Does it matter if the context was securitised before?

The past Chapters have presented six cases, each varying in their physical and administrative context and technological intervention. The present Chapter evaluates the six cases to see if and how security and risk talk influenced decision-making on river interventions, and if the flood or the flood project impacted on the decision-making regime. Following Balzacq (2005) it looks at agency, audience and context. The analysis will be guided by the insights from Chapter 4, where we encountered three narratives of water war, peace and hegemony. These three world views appear to map well onto the hazard, risk and vulnerability approaches in disaster studies. A *hazard* approach sees hazards as forces of nature, seeks to prevent the hazard ever happening, so that society can worry about other things. It thus invites structural defences. A risk approach by contrast accepts that risks can happen in spite of the best efforts to prevent their incidence, and needs the co-operation of society to reduce the impact.

TABLE 9.1   Three disaster narratives structuring the present chapter, their focus and parallel to metanarratives in Ch. 4.

Disaster narrative	Cf. Chapter 4	Security is about	Immediate Security Referent
Hazard (Securitised)	War with water	Reducing Probability	Dikes
Risk (Desecuritised)	Peace with water	Reducing Probability x Impact	Floodplain / polder
Vulnerability	Hegemony	Reducing Probability x Impact x Vulnerability	Community

To start with, Section 9.2 unpacks the key elements for securitisation analysis and categorise the different cases in which securitising moves were attempted according to securitised or non-securitised *context*. (9.3). Thereafter, attention shifts to *audience*. Sections 9.4 – 9.7 investigate if securitising moves were accepted for the sake of survival, or if they triggered resentment, rejection and resistance with the audience – intended target groups and uninvited interventions. Non-acceptance can be expressed in non-compliance, but also the politicisation (9.5), 'countersecuritisation' and even outright conflict (9.6).

Buzan *et al.* (1998: 72) predict that environmental securitization will fail. Analogously, we may predict that declaring 'war with water' (flood *securitization*) is likely to fail. How do water managers deal with this failure potential? Are they prepared to deal with water threats in a 'peace logic' (the everyday politics of decision-making) On the basis of the 'water peace logic' introduced in Chapter 4, Section 9.7 investigates what *de-securitised* (peace with water) flood management looks like, in terms of regime rules, participants and knowledge in project planning and implementation. Does this lead to normal politics or can desecuritised projects, like securitised projects also trigger criticism and conflict and (re)-securitising moves?

The 'felicity' of a desecuritised logic will be analysed in light of the vulnerability narrative in disaster studies. The approach is sensitive to differential security outcomes, highlighting that not everyone is equally exposed to risk, but rather that the way the political economy is organised structurally exposes some groups more to risk than others – a *vulnerability* approach (9.8). In light of the constructivist approach taken in this study, I did not assess the solidity of the structural defences, the good sense of actors' behaviour or the vulnerability of specific sections of society, but whether perspectives associated with these prisms appeared in the case literature and interviews.

Section 9.9, finally looks at the impact of flood and flood projects on the actors, rules and knowledge in the decision-making regime. The three narratives bring a layered perspective of regimes, showing that changes at surface may not evidence change at deeper power structures. A Conclusion ends the chapter.

9.2   SECURITISATION ANALYSIS: WHAT IS IT?

Securitisation releases extraordinary resources and powers to counter the threat, exclude (discussion of) alternatives and dispel uncertainty and ambiguity, and trumps the debate by invoking existential, survival values, assigning the issue to the state as if by definition. Let us consider more fully what the defining steps and elements of securitization are, and thus what steps are in order to analyse the case studies under scrutiny.

1. *Naming* a threat to a prized referent object (*protégé*), which may be material (homes) or immaterial (cultural values, holy sites). The declaration of a threat implies it has to be acted on urgently. If the threat is implicit or taboo, it is unlikely to trigger action.

2. *Framing* a threat: a theory of what caused the threat (blaming and claiming).
Attribution theory teaches us that in case of complex causal relations, people seek to attribute agency and blame for risk and accidents to a single causal (f)actor, which then helps legitimise security measures. The source of the threat, the enemy, may be considered as external (upstreamers, polluting industries) or internal (irresponsible/deviant behaviour from within the community).

It seems obvious that the enemy in a securitised flood is the river. But as the river is generally not seen as 'acting' itself[427], so that the tendency is to *blame* someone or something for the high water event: God/Allah, climate change, upstream flood action, irresponsible settlement, and *claim* damages or remedial action.

3. Call for an unambiguous *remedy*, a (simple) solution for countering this threat. Attribution not only pertains to *causality* in hazards, but also to *remedies* – you still need a dose of ´magic´ to contain risk: 'if we only do ´this´, the problem will be solved'. Possible remedies are:
  - constraining/containing the river by infrastructural measures
  - seeking to change the behaviour of the supposed culprit (limiting degrees of freedom)

This is done by means of:
  - a counter-threat, a ban on upstream river development;
  - institutional measures: settling (dis-)incentives (e.g. zoning, fines, withholding insurance).

4. *Follow-up*: *implementation of intended security measures.*
The issue is tackled in a crisis ('panic politics') mode, legitimising the use of force, secrecy and shoring up of certain rights, debate and criteria. Securitisation legitimises actions that are normally unacceptable: flouting rules of accountability, environmental regulation and acquired (human) rights. Not only does securitisation reduce the *range of actors* consulted to the state only, but also the *range of alternatives* considered. A security mode closes channels of communication, of open tendering and accountability, and makes space to 'get on with it'.

Attribution of a threat does not necessarily lead to its validation and authorisation by the audience. If saying 'security' makes it so for the enunciator, it does not have to be 'perlocutionary' (convincing) for others: it may be found illegitimate, false, or irrelevant. A securitising move may thus be made without being followed up by action. Vocally blaming an upstreamer for a flood does not automatically translate into a declaration of war and may not have been intended that way. The securitising move, in such a case, can be said to lack performativity due to resistance from its intended audience who try to 'break the spell'.
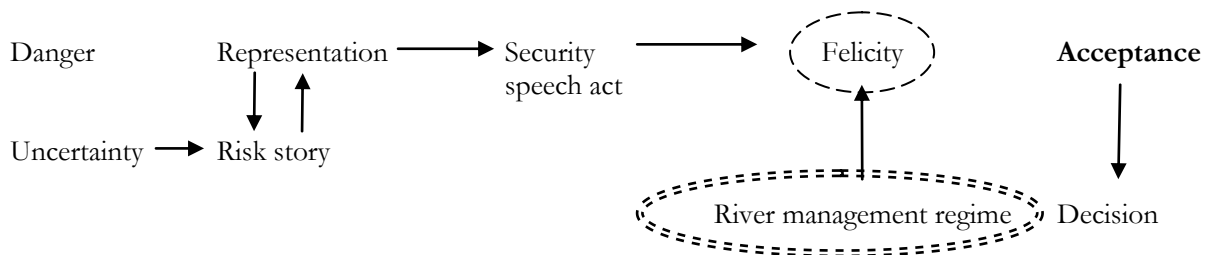

FIG. 9.1   *Conceptual model underlying this study*

9.2.2. CONTEXT MATTERS: HISTORY AND OVERLAY IN FELICITY

Thierry Balzacq (2005) has noted that ´speech acts´ are not unidirectional communications, but require *agency*, *audience*, and *context*. A speech act only works because an audience approves and the context validates the (speech) act. Buzan *et al.* (1998) take *context* into account when they expect a security speech act to perform better if it refers to a recognised threat that people are familiar with. Securitisation can be institutionalised - you do not have to explicitly say 'security' all the time to trigger the desired response:

> '(I)t is implicitly assumed that if we talk of *this* (...), we are by definition in the area of urgency: by saying 'defence' (or in Holland, 'dikes'), one has implicitly said security and priority' (Buzan *et al.*, 1998: 27).

The case studies can be categorised according to context as follows:
        - securitised and non-securitised states
        - securitised and non-securitised rivers

  - *Securitised context: the garrison state*[428] *(Turkey and Egypt –Bangladesh until 1990)*
While the going definition of a 'crisis' normally would imply a short incidental peak on a longer time curve, securitisers in Egypt and Turkey have managed to stretch the operability of 'urgency' to quite extended periods. Political securitisation (the security state) raises the barrier to desecuritising discourse even without the need for a discrete securitising event. Everything can

potentially be a security issue, but it is for the state to decide this. As Wilkinson notes (2007), such a situation makes it hard for social actors to make competing security speech acts.

- *Securitised river: recognized threat (Maas, Rhine - Netherlands)*

In light of Buzan *et al.*'s remark on the impact of ´saying dikes´, we would expect floods to be structurally securitised threats in the Netherlands, even if the governance context is not. The Netherlands lost many people and assets in past flood events, until 2002 had civic 'dike armies' patrolling high water stages and only focused on preventing floods, eliminating residual risk.

If the river threat is so institutionalised, a flood easily actualises ´sedimented´ security (danger) responses in speech and practice. When the high-water event eventually comes, it is easily and 'felicitously' declared a crisis, and most proponents and opponents are agreed on the need to protect lives and assets, although they may differ about the way it should be done. The balance predictably tilts towards quick-and-dirty engineering – emergency embankments, river bank repairs – and crisis measures suspending normal rights and freedoms, such as zoning and expropriation. A flood securitisation thus successfully mobilises unbounded resources and a support base for countering future flood events.

- *Non-securitised context*

If the river is not normally seen as an enemy, as is the case in Britain and Bangladesh, the shock of a flood crisis could change this and impel emergency measures. Other security issues may strongly resonate, though, notably food.

9.3   WHEN THE FLOOD CALLS … FLOODS GET SECURITISED?

9.3.1   *SIX RIVER SECURITY PROJECTS*

Let us briefly recapitulate the six cases, organized by the above categorization of context:

Egypt and Turkey - River projects in securitized states

While *Egypt* is the 'gift of the Nile', there would not seem to be a particular reason for Egypt to securitise Toshka, let alone for upstream Ethiopia to protest it. Egypt has achieved full *technical* closure of the Nile by building the Aswan Dam with a giant storage reservoir, Lake Nasser. However, every now and then bumper floods at times exceed the lake's capacity and required the construction of a spillway into the desert. Prepared not to waste a drop, the Egyptian government planned a giant project development, the Southern Valley scheme, to 'opportunitise' (Warner, 2004) the flood years, that is, capitalise on the windfall flood years at whatever cost. The scheme would not only expand the currently constrained irrigable area but also create space to resettle millions of Egyptians currently living in the densely packed metropolis. Ethiopia saw it as a prior claim which would constrain its own security of future development and protested.

In *Turkey*, water is plentiful, and as an upstreamer, the country has no external river intervention to fear. The flood damage potential on the Tigris is mainly in the Iraqi delta, and has given rise to major infrastructural works there. The GAP dam project intended to bridge socioeconomic divides between the bustling Northwest and impoverished Southeast. Having realised planned projects on the Euphrates, the Turkish government resolved to exploit and regulate the river Tigris. However, the Turks set their sights on the river for development of the resources for hydropower and irrigation as part of the Greater Anatolia Project (GAP). To create a reservoir adjoining the Ilısu Hydro-electric Power Plant (HEPP, effectively started in 2006, dozens of Kurdish villages including the historically significant town of Hasankeyf need to be 'manually flooded' and their inhabitants resettled.

Turkey sees the (induced) flooding of houses and heritage as a necessary stage in reviving the civilisation of Southeast Anatolia. But the citizens of Hasankeyf and other flooded villages saw it as the destruction of their home and heritage, while Kurdish rebels moreover saw it as a symbol of Turkish domination and made the river works a target for attack. As a consequence, Turkey's Southeast Anatolia region has remained under a state of exception since 1984. The re-ignited Kurdish uprising has ensured Turkish army presence in the Southeast region and critics can expect detention for contempt of the Turkish state.

In Egypt and Turkey, full control of the rivers has not led to their demilitarization and desecuritisation. On the one hand, drought imperilling energy and food security is still an issue, but also control of people, the strategic value of regional development and economic interests underpin a military role in the water sector. The river management projects are treated as national security because they are development projects set in the very regions that are subject to perceived originators of threats to national security – Upper Egypt and Southeast Anatolia. As we saw in Chapter 4, the Nubians face 'soft repression' (the ignorance of their identity frame and demands) while Kurds face repression, making political demands difficult to voice.

It has been observed (Aydın, 2003 and others) that Turkey is existentially insecure due to a history of recurring wars and internal challenges. This has promoted *coup d'états*, declarations of the state of emergency and a strong role for the army. The securitized status of both project and political decision-making has foreclosed the scrutiny of project alternatives outside a select group. President Mubarak assures his subjects that multiple alternatives have been considered, and Turkey's State Hydraulic Works, DSİ, studied ten alternative locations for the Ilısu Dam, several of which would have saved much or all of the historic city of Hasankeyf. As the Turkish project became a more integrated project, it gradually accommodated more complexity. In both cases, it is clear that they were not held up to public scrutiny before they eventually became politicised.

Netherlands - Securitised rivers in a desecuritised state
While security concerns in the Netherlands had diminished in a largely flood-free epoch, two high-water events in 1993 and 1995 put flood risk back on the policy agenda. On the Maas, several locations flooded in both events. While no one died, the flood damage and shock of not being safe brought a sense of disaster which can be said to have rescued the Grensmaas project, an initiative by the Province of Limburg. This plan for the Maas, developed in the 1980s, sought to combine nature development and flood protection by widening the river and creating natural embankments, funding the project with gravel extracted from the river (green for gravel).

While the Rhine did not flood, the consecutive water events nevertheless triggered 'panic politics': a preventive mass evacuation effort and emergency legislation in 1995. All of a sudden, security from flooding was the number one priority. The Netherlands took just two weeks to develop a Delta Plan for the Great Rivers and rush it through the Houses of Parliament and Council of State. This plan authorised special powers to carry emergency measures on the Maas and Rhine for a two-year period, including the suspension of strict rules of accountability, participation and environmental regulation. The government put in emergency river dikes and a ten-year moratorium on construction in the floodplain. Significant informal influence on security decision-making was noticeable between 1995 and 1997.

An essential part of subsequent debate revolved around the question whether the flood issue was also a security issue in Limburg. When the Public Works department, Rijkswaterstaat, offered to take the lead in the project, Limburg had expected the river works to be adopted as a security issue, furnishing the balance needed for the project. However, RWS argued that Limburg is well above sea level with considerable space for a flood peak to disperse. In the end, the pro-security initiator, Limburg´s provincial authority, won a Pyrrhic victory: the legal security norm (a 1 in 250 year flood) was extended to undiked Limburg and the project went ahead, but without the hoped-for funds. This stripped the project of its more innovative and legitimating (or sweetening) features such as nature regeneration.

Fear of extreme events was also the rationale for the plan for controlled flood storage in the Ooij polder and two other polders launched in 2000. The idea was to inundate thinly populated areas to save more densely packed areas. The Vice-Minister initially decided not to securitise the decision-making, but to throw it out into the open. After provincial protest in Gelderland, central government attempted to depoliticise the issue by instating an advisory committee. A wider range of civil society institutions were indeed involved in the commission's work. The security rationale convinced the committee members early on, but could not command the same felicity with local polder dwellers, who complained they were not consulted.

Bangladesh - Securitised event in a desecuritised / desecuritising context

As if devastating coastal cyclones in 1970, 1991 and 2007 are not enough, Bangladesh's rivers have not been kind on the country, either. The fatal coincidence of high water on the Brahmaputra-Jamuna and Ganges created two consecutive major floods in 1987 and 1988. The August and September 1988 flood claimed 2000 fatalities and left millions homeless. President Ershad, took emergency measures to protect the capital and to restore order. The mass human suffering incited French President Francois Mitterrand's resolve to stop the floods forever. The French rallied the G7 industrial countries around a Flood Action Plan for Bangladesh and proposed a US$5bn mega-plan to embank all the three major rivers that besiege the country's flat territory (technical closure). The French discourse of delivering Bangladesh from floods justified dramatic structural solutions, to honour an implicit duty to protect Bangladesh rather than leave it to its fate. This securitising plan however lost out to the concept of polder compartmentalisation combined with flood proofing measures, in keeping with the positive, life-giving aspect of flood risk; a partial desecuritisation of the river.

A flood risk assessment led to the de-selection of two project areas, while the project's implementation stage was saved from discontinuation by a smaller flooding event. The Jamuna Multipurpose Bridge project started nearby had led to a blocked inlet feeding the FAP-20 area with water. An apparently spontaneous river breakthrough unblocked the inlet but also destroyed hundreds of dwellings. Yet when in 1998 another 'century flood' hit Bangladesh, FAP-20 showed its merits as a safe haven not just for Tangail but also attracting many refugees from outside the area.

Bangladesh's Flood Action Plan started under a dictatorship (political closure). The President had already declared a state of emergency for political reasons, providing little scope for dissent[429]. This cleared many initial hurdles, as it obviated the need for democratic control. Thus when a leading research NGO issued a critical report on flood management, this led to repressive measures against its directors. In 1990 Bangladesh reverted to a shaky multi-party democracy.

Technical as well as political setbacks repeatedly forced the initiators to change the project definition. A crucial factor was contested legitimacy. Local protest, coupled with a strong international NGO thrust, alerted donors to defects in the participatory structure and effects on the local socio-economic structure, based on communal land use. After local and international protests, the Bangladesh Water Development Board came round to dialoguing with the intended beneficiaries in 1995.

Britain - Flood shock event in non-securitised context

Despite suffering its own 1953 sea flood event, in which hundreds died, the UK has no institutionalized securitisation of hazard: the government has no formal responsibility to safeguard citizens from floods, instead people are obliged to take out insurance to buy or build property. Flood security is not 'politicised' in Buzan *et al*'s sense. Yet, the Thames Conservancy and its successors have unsuccessfully sought to securitise the floodplain by imposing development controls (keeping people away from the river). Local authorities, but also central governments facilitating a housing boom in the Southeast, showed weak opposition to the initiatives of floodplain developers.

The Agency also faced an uphill battle convincing public and civil-society stakeholders of the need for *flood defence*. It sought a role in providing security and protection ('Protecting your homes'), but wished to forsake hard defences in favour of environmental engineering: a flood bypass on the Thames with 'soft' river banks. This would promote a more integrated approach to river management and increase the natural values of what it pictured as an 'ecologically uninteresting' area. A truly integrated approach for the Thames moreover would require a second channel downstream from the first one. After a lengthy consultation process, a public enquiry and a revision of the project, the channel to protect Maidenhead, Eton and Windsor was built and opened in 2002.

By that time, pressure from insurers and public shock over repeated river floods had started to boost the legitimacy of public protection works. Unlike in the Netherlands, a minor flood event had come and gone in 1990 without greatly affecting the project. But three-year flood cycles (1998, 2000, 2003) ensured the issue remained on the political agenda. As the water rose in January 2003, the Jubilee River's natural embankment broke down and, among other factors was locally believed to have contributed to flooding Datchet. In response, the Environment Agency put in emergency engineering works, denied any responsibility and dismissed calls for a public inquiry[430]. The aftermath of the flood dented confidence in soft engineering, but not in flood channels, and led to the decision to put the previously rejected channel extension back onto the agenda.

9.3.2   WINDOWS FOR SECURITISATION: SOLUTIONS IN SEARCH OF A PROBLEM?

> 'Dominant advocacy coalitions attempt to define the problem and the solution together in one package..a solution [is] chosen first and the problem definition ... fit into that. (Wolsink 2003: 715)

The question starting this study off was whether flood events, or the projects to contain them, changed the policy scene (regime) through securitisation. The present study operationalised the actualisation of securitisation by considering what happens in a post-crisis mode of decision-making, a (natural or induced) high-water event. A crisis event reveals the social arrangements, the hegemonic discourses. A crisis simplifies the decision-making system as it copes with a potentially overwhelming challenge. This reconstituted crisis arena can 'punctuate' the reigning balance of power and its *modus operandi*, but also reinforce existing relationships.

On closer inspection the flood events rarely turned out to trigger new flood projects. It appears the projects were already there, looking for a niche to blossom. The FAP-20, Jubilee Channel, Maaswerken and Toshka case studies were all prepared *before* rather than after a major event. Although it was not possible for me to have inside information on decision-making on all the schemes, the available evidence suggests that in most cases under scrutiny, the plan *preceded* the flood. In each of the projects, in addition to demand for security, there appear to be at least some 'supply' considerations at work beyond direct flood response when selecting them.

FAP-20 was already defined before 1987/88 floods and, according to interviewees, would very probably have gone ahead without the Flood Action Plan. Compartmentalisation gained prominence after the flood, though. as a workable compromise between the two competing paradigms of flood management: total control (hard structures), and living-with-the-flood (flexible response). While FAP-20 was the flagship, compartmentalisation was also a defining element in other FAP subprojects (such as FAP 3.1 in Jamalpur and FAP-4 in Khulna-Jessore). The floods however created a context in which the local Bangladeshi request for support could be articulated with security discourse on the global scene. From my interviews it was very notable that neither 'security' nor 'vulnerability' have much resonance in Bangladesh in relation to floods. But floods as threat resonated with donors used to speaking 'security' from floods and its lexical isotopes (defence, threat, fight against water): France, the Netherlands, now the Asian Development Bank. This provided an opportunity to develop an extensive programme of flood projects.

While the Jubilee Channel was of course built before the 2003 flood came along, the flood brought the second channel back for the downstream river section on the agenda which had been defeated on cost-benefit considerations in 1992. After another flood, in 2007, the second channel in some form appears to be still on.

The Egyptian government needed several years of abundance to give the enormous Southern Valley project, lying in waiting since the late 1950s, a big push. Egypt's legitimisation, need for space and food security may be questioned by international scholars, Mitchell and Allan respectively, but continues to be echoed in donor discourse.

In the Netherlands, the Border Maas (Grensmaas) nature restoration project languished until the flood came along. The floods provided a unique opportunity to save a nature development by hitching a ride with a 'dry feet' project; the gravel industry, who faced a ban on further quarrying, has strengthened its hand because its participation provides the economic rationale for the project.

Linking nature development with flood protection, gravel extraction and navigation together legitimised the hefty size of the intervention. The plan combined several interests and objectives, but without the flood protection aspect, it is doubtful that the project would have gone ahead in this form.

The story for the Ooij polder is slightly different: flood storage was a practice that had fallen into disuse since the 1950s in the Netherlands. When in the 1995 high-water event Gelderland was on the verge of an emergency inundation of the Ooij polder to save downstream polders, the plan to revive this practice emerged in 2000.

As for the Ilısu dam, there is no such clear event, although the energy crisis of the 1970s can be said to have been a significant help in legitimising an expensive hydro-electric plant.

Non-security innovations found a niche in the design of new projects when presented as flood control projects. From one perspective, greening the projects and 'making space' for the river was hoped to appease project-affected population worried about the quality of their landscape or their access to monsoon water in each of the three 'wet' countries: river widening (NL), 'green' bypass (UK) and compartmentalisation (Bangladesh). On the other hand, the project itself saved or promoted non-security concerns: such as environment and agricultural self-sufficiency and export, technology, the future of the gravel industry and the beautification of 'uninteresting' landscape. The power of flood defence can help something else to play hopscotch. This 'something else' can be seen as development frame – whether a 'civilising mission' of regional human development as in Turkey and a new civilisation on the Nile or nature development in England and the Netherlands where, project initiators sought to gentrify an 'impoverished' or 'visually uninteresting' landscape.

This finding is supported by a strand in the public administration literature that reveals that problems and solutions are not sequentially put on the agenda. Solutions may be waiting in the wings, spying the arena for an opportunity to make their way into the debate. The 'garbage can' (e.g. Cohen, March & Olsen 1972) theory of decision-making predicts this - it visualises problems and solutions to be thrown into a garbage can where they can quite fortuitously meet. Kingdon (1984) sees windows of opportunity where problems, politics and policies are understood as three separate 'streams' which may come together when a particular 'window of opportunity' opens. But the meeting of streams in Kingdon´s 'primeval soup' does not have to be accidental - the factors facilitating the window of opportunity can be helped along by key individuals ('policy entrepreneurs'), key events or *crises*. It may then well be that a solution (an alternative for flood management) has been waiting for a 'felicitous' problem to latch itself on to. All this would suggest that, rather than a problem in search of solution, flood protection schemes may have been *solutions in search of a problem*. Unprompted, several interviewees voiced this assumption as well.

9.3.3   'TIME IS ON MY SIDE'? THE SHADOW OF THE FUTURE

Time is perhaps the worst enemy of flood securitisation. No matter how 'structural' the state of emergency, there is inevitably an end to the sense of urgency that legitimises exceptionalism. While actual floods bring existential fears, these are often easily forgotten by those who were not badly affected. The post-flood drive and momentum quickly runs out (Huber, 2004 gives it two years) if floods do not return and disrupt society. As attention shifts to other concerns, flood plain regulation is relaxed again and funding and handling of the project comes under scrutiny.

Popular acceptance of river regulation schemes thus cannot be taken for granted. As it not easy to put flood management at the top of the agenda except just after a flood event, project initiators may feel that a *carte blanche* is needed to cut the red tape and get things done.

When the momentum for a river project starts to flag, it may be attempted to invoke a crisis, or adduce and invoke additional threats. As engineers who pray for a flood may not get it, other threats can be adduce to make the case for flood interventions. We saw terrorism as an additional security reason in Turkey and Egypt. In the Netherlands and the U.K., climate change was said to cause greater rainfall variability. But Dutch and English river projects were legitimized by climate change-induced extreme flood scenarios. In the Netherlands, the possibility that floods *might* have caused great damage set in train measures like evacuation in 1995 and subsequent construction and regulation leading to the controlled flooding policy. When the emergency measures had run out, a programme of river widening interventions was started (Space for the River). Worsening climate change predictions led to the upward revision of scenarios on the rivers Maas and, especially, Rhine. Water professionals started to worry: What if a never-experienced 18,000 m^3/s flood wave hits the Netherlands? This fear led policymakers to designate several polders for emergency flood storage with a view to saving more densely built-up polders in 2000. In its promotional material for the Jubilee Channel, Britain's Environment Agency invoked the 1947 flood, but also dramatised the issue by invoking the horrors of the greenhouse effect, playing on latent fears in the project communication strategy. Thus the shadow of the past and the shadow of the future reinforced each other.

In Bangladesh, climate change did two things: it created a new 'culprit' outside the region, as it is Western CO_2 emissions that are believed to contribute most to climate change (Huq and Reid, 2004). But it focused on sea level rise rather than rainfall variability, shifting the focus from river flooding to coastal flooding and cyclones, focusing the discourse on sea level rise rather than on higher river flood stages.

It appears project initiators have three options to reduce the 'shadow of the future'
- to seek to extend or renew the security window through extra securitization to keep up the momentum;
- to secure as many 'early wins' as possible while the emergency window is still open, or
- to take anticipatory action to accommodate the inevitable shadow of the desecuritised future.

This latter option might compromise the support base for securitised decision-making of the home audience. A solution may be a two-faced discursive strategy: a 'securitised' image of threat control is projected to the home audience, while the initiator in fact designs or implements the water management project with 'desecuritised', peacetime logic in mind - 'just in case', to prevent problems after the flood window closes.

Clearly, almost all the major problems the Maaswerken encountered since 1997 stem from decisions taken during the 'securitised' time window, without such anticipation. National and European accountability rules such as anti-trust and environmental directives quashed regional security-induced consortium deals and exemptions from environmental controls after the floods.

9.4 COMPLIANCE WITH SECURITISATION: FELICITY AND INFELICITY OF SAYING SECURITY

'When a state actor makes a securitising move, it demands special powers to restore order, a temporary derogation from rules.'
'Responses can range from endorsement, passive acceptance and bargaining to non-compliance, resistance and conflict. Acceptance makes the difference between the effort (securitising move) and the success' (Stahl, 2007).

9.4.1 THE AUDIENCE FOR SECURITISATION

Policy problems do not present themselves, they are framed. The framing already point at its solution. At the start of this chapter, the key security frame elements were defined as the risk itself (naming, labelling), imputed cause of risk (blaming and shaming) and preferred solution (remedy)[431]. All schemes were framed by at least one key actor as a defence or national security issue. The present Section examines who needs to be convinced to make a successful securitising move.

The securitisation requires a felicitous convergence of enunciator, referent, object and audience bringing closure to a debate, to the policy agenda, or even to what can and cannot be talked about in society. Securitisation, as noted, is a call and response. While most of the projects in some way benefited from the flood window, all of the schemes got into trouble somewhere down the line. As large infrastructural project can take decades to be realised, the consonance of the call and response needs to be sustained. A positive initial response from an audience ('let's do something about this!') does not guarantee successful legislation and implementation of the proposed remedy.

To assess the felicity of these moves we cannot measure the impact, but only note *ex-post* that they did or did not generate public debate and resistance. A sure sign of successful securitisation is that critical voices are silenced or dismissed as irrelevant, that information remains classified, assumptions untested, blank cheques handed out, alternatives ignored. If it is untested, this can be seen as testimony to the strength of the securitisation.

Securitised projects never command a total consensus and can in principle be challenged. While flood protection is a powerful securitiser, the rationale leaves space for it to be discredited, its motives questioned, its implementation thwarted, and the procedure of selecting alternatives criticised by other stakeholders or non-compliance and civil disobedience. Especially when the immediacy is not overwhelming, stakeholders can find niches for advancing their doubts with relative ease: they locate, test and latch on a sore spot and secure it to question the need for securitised decision-making. Securitizing agents will have to convince their audience they are acting in the latter's best interests, identifying with their feelings and needs (Balzacq, 2005).

Hilhorst identifies the following domains:
a) The domain of *disaster governance*. In a securitised state, the state has great discretion over private rights and freedoms. The relevant audience may only appear to consist of a closed circle within the state apparatus, expected to control society and ensure its compliance. However, the case studies show even this isolated arena is not enough to control either the local or international levels. Where the local level is controlled, the superior level of decision-making may not co-operate, and where the national and international levels are aligned, the locals may revolt. Within the governance domain, the pivotal role of donors should be highlighted, whose support needs to be 'enrolled' indefinitely.

b) The '*epistemic community*' of science and technology experts concretises the project with models, designs and evaluation studies. It may differ with the initiator on the need for securitisation and the assumptions underlying the flood (de)securitisation, but also with stakeholders on their ´real´ risk. Experts are internationally mobile. Politicians who are experts in the water field (Christie and Hanlon, 2001) are exposed to their international peers. In democracies, they bridge the public, private (consultancy) and NGO sectors and may be mobile between the sectors. Scientific debate may support but also disagree with the securitising logic.

c) The audience for securitisation involves the whole population, including those expected to accept the whole package of restrictions and sacrifices resulting from security decisions. Faced with a disaster, it is the local *domain* that bears the brunt of immediate coping and relief efforts (Kirschenbaum, 2004). Faced with acute insecurity, stakeholders (in both Hobbesian and non-Hobbesian state contexts) are prepared to throw their lot in with an external security provider and willingly give up their autonomy. The modality in which order or safety is restored after a disaster event however may leave people feeling threatened in terms of their rights or identity. It may not accept the required sacrifices for the greater good if the project fails Balzacq's condition that the securitiser convinces the audience of acting in their best interests, feelings and needs.

Three key 'audience' groups relevant to the present study are those identified in Hilhorst's (2003) three domains of knowledge and action. Each of these has a specific capacity to address hazard, and would ideally coordinate with each other to the hazard at hand. Yet, such co-ordination in flood response is not the norm, given the spectacular tales of ill-coordinated disaster response such as detailed by Christie and Hanlon (2001)[432]. Established practices (people speaking 'the same language' and working by similar protocols) within and between the domains, may obscure a clash between multiple perspectives of reality and interests. The alignment of the three (for accepting a securitization or desecuritised network coordination) can be highly problematic, as they need to co-ordinate well to ensure disasters are adequately addressed.

Successful securitisation would align these domains in a consensus at one stroke. It appears from the Dutch case, the crash programme to build hard structures in Limburg encountered little controversy, even if it involved some hurried expropriation measures, and people enjoyed the informal access to security providers. Several Dutch interviewees were nostalgic about the post-flood period, 1995-1997 when everyone – flood managers, politicians, experts, local people - joined hands and could fast-track decisions. But even this apparently successful securitisation got into trouble after 1997.

The Table below lists five reasons why a securitising move might be resisted (from Gromes and Bonacker, 2007).[433] In all cases (including Limburg post 1997) part of the 'audience' did not condone the case for river securitisation. It appears that each of the three domains indeed played a leading role in the *non-securitisation* of one or project. After each point, it is indicated how this resonated in the case studies and which actor category contested. The case studies suggest some additions, captured in the ´other reasons´ category of reasons in the Table (Table 9.2).

9.5   RESISTANCE: NON-COMPLIANCE, POLITICISATION AND CONFLICT

In a European (liberal) context, any intrusion in freedoms needs to be legitimised to assure compliance. In liberal democracies citizens are imputed to comply with state rule because the law guarantees them protection. If they do not feel it protects them well enough, they do not feel bound by it (Boutellier, 2002). Coercion is the least effective way of durable compliance (Held, 1980).

TABLE 9.2   *Non-securitisation applied to flood management in the six cases*

	Non/securitising move (Gromes and Bonacker, 2007)	Applied to the water sector	Argument advanced by
1	The asserted existential threat never existed.	- The river is not dangerous - The river is not that dangerous. - The extreme flood scenario is doubtful	- Ooij: epistemic community - Maas: donor (RWS)
2	The existential threat does not exist anymore.	- Food security is not an issue, as there is no water scarcity thanks to virtual water	- Egypt: (International) Epistemic community
3	Ordinary measures suffice in order to respond to the existential threat.	- The river is a nuisance rather than a security issue. - Special measures are not necessary	- Maas: river manager/donor - Thames: donor
4	Panic politics are not effective in addressing the threat.	- The strategy or project is not good enough - The intended plan will not do the trick. The river can't be tamed. There are limits to defence. - It's better to adapt to the river than control it.	Bangladesh, Netherlands: local NGOs and (some) flood experts
5	The extraordinary measures avoid the existential threat but their side-costs are too high.	- Personal or social costs outpace benefits: project is the greater danger - Project costs are unsustainable - Technocratic approach - Project makes stakeholders more rather than less insecure (Collateral damage of fighting the flood too high). - Unwillingness to carry costs or sacrifice	Sacrifice: Local NGOs, Epistemic community Costs: donors, epistemic community (all cases)
	Other reasons for resistance to securitization	- Other issues are more pressing - Distrust in motive or authority of initiator ('hero') or securitiser	UK, Bangladesh: Locals

In the event of a flood threat, emergency measures were accepted in the Netherlands. Despite the flood not happening on the Rhine, a majority of stakeholders claimed in a survey that they still felt mass evacuation was justified (*de Gelderlander, 2005*). On the Maas, Compulsory Purchasing Orders (CPO) were accepted and the emergency structures, in the first two years after the high-water event, mostly uncontroversial. This makes for an interesting difference from Britain, where Eton resisted the CPO up to High Court, feeling there was no urgency for land take, however temporary. The Maas interviewees expressed satisfaction at the informal fine-tuning of the emergency *kaden* and did not complain that they were built without tendering.

9.5.1   NON-COMPLIANCE AND 'OPPORTUNITISATION'

Actors who reject controls may resist directly, but also in subtle ways. The controls can spark 'deviant behaviour' (Bakker *et al.,* 1999), that is, non-compliance with state laws and directives, undercutting institutional surveillance and control.

Spatial zoning reflects the behaviourist (institutionalist) approach to disasters, zoning measures and incentives 'teach' people to behave responsibly and anticipate disaster. It can consist of total ban on development or the identification of risk contours linked to compensation coverage. This appears to be a losing proposition in flood plain, where enforcement is a particular weakness of flood policy and what is logical from a project perspective is not logical from a user perspective.

In floodplains the pressure for river encroachment is relentless. Whether because of the amenity value of living by the water, fertile soil, easy access to waterways, low rent, or because other livelihoods are unavailable, the pressure to occupy the floodplain is relentless.

While Bangladeshi politicians have blamed people for irresponsible settlement, there simply are no settlement controls that influence their settlement decisions. As FAP-20 was an experimental programme, it put in several more dikes than strictly needed, failing to anticipate the overwhelming need for space to live and till the land like before. Flood embankments claimed land used for dwellings, arable farming and cattle raising, which in Bangladesh is mainly done by women. The need for space was most clearly expressed in individual and collective erosion and 'public cuts' of dikes and clogging of drainage channels with new constructions.

While in Bangladesh people enjoy very few degrees of freedom in terms of location and livelihood, the Europeans in our case studies mostly accept risk because they can afford it (Loucks, 2006). Unlike Bangladesh, environmental 'bads' are not badly distributed in the Netherlands, that is, socio-economic groups are equally exposed to risk. But by contrast, environmental 'goods' are: If you can afford it, you can procure amenities not open to others, such as living on a scenic location by the water (interview Bressers, October, 2007). Those who wish to settle in the flood plain in the Netherlands are not vulnerable, but privileged.

Just like a smokestack used to be a source of progress in '60s Europe, an embankment in front of your house can be a source of social prestige in Bangladesh. In the European cases however nobody wanted an embankment in sight. The designation of the Ooij for controlled flooding was opposed, among other reasons, because it would make the region unsuitable for investment and cause property prices to fall. This meant that while demand for flood management intervention is voiced by property owners, opposition also comes from other property owners.

The phrase 'opportunitisation' (Warner, 2004a) may denote that, just like threats to survival, a development opportunity that seems too good to be true can bring actors to break away from normal rules and disregard rights. The pressure to develop the flood plain (or in Egypt the desert) is great and government-supported with a view to the overriding need for space for housing. Social and economic interest can override environmental and safety concerns. This can be done by state actors, but also by actors in society. In the Netherlands, the first step in de-constraining the river was a ban on flood plain development in 1995. But in Limburg I heard at least one story of emergency structures planners colluding with developers, moving a dike back further than planned to save more land for development

In Britain, since 1947 river managers have been pressing for planning guidelines to ´make people behave' better. Each flood has spawned a call from the river manager for planning controls, but has been overruled by housing pressures (and economic opportunities) on the flood plain, accommodated by a persistently permissive flood plain development regime resented by the Environment Agency.

In Britain, this is different in metropolitans and London and between regions, but in Maidenhead the most flood-affected people court risk because they can afford to (interview, Winchester, 1999). This means risk accepting behaviour and opposition to flood schemes. In Southeast England, local authorities and developers find ways to ignore or outwit planning regulations. There, and in Limburg local authorities have thus deliberately, if selectively, opened up the flood plain and allow building in low-lying polders, requiring citizens, civil society and local authorities to arrange security for the new dwellers.

9.5.2 POLITICISATION IN A SECURITISED CONTEXT?

Political closure is achieved through invoking threats to national security and declaring a state of emergency, which has been in place since 1981 in Egypt and 1984 in Turkey. This makes every

aspect of life a possible security issue. Since water is a strategic good for both countries, both Ilısu and Toshka river management projects were proclaimed 'national projects'. This makes opposition potentially considered treasonous and basin conflict potentially violent.

In Buzan *et al.*'s understanding of politicisation, an issue becomes subject to public debate and government takes responsibility for it (1998: 28). Domestically, political debate, even protest, is difficult to stage in a context where not only the project but all of society is securitised. Under the state of exception, rulers rely on the military and external protectors. But even authoritarian (totalitarian) states need to legitimise the state of exception they have imposed. Mega-projects may seek to procure this legitimacy. Wilkinson (2007) has noted that it is hard to 'speak security' in securitised environments. To start a debate in a securitised context, one has to make sure not to set oneself apart from the state's values. Does this hold for the two Middle East countries, Egypt and Turkey?

Egypt and Turkey are multi-party democracies, but organised orthodox Islamic opposition is outlawed, and identity based political action faces soft (Egypt) or hard (Turkey) repression.

Domestically, out of the six cases, Egypt seems the most 'closed' on the political and technical continuum. The Egyptian press is infrastructurally controlled and public protest is not allowed. But even in the heavily securitised Egyptian environment, opposition Members of Parliament could seize on the downside of the river projects (corruption, favouritism, mismanagement). In Egypt, the expensive capture of excess floodwater gave critics a symbol to lambast another state projects as 'white elephants'. Despite the ruling National Democratic Party's firm grip on political life, it proved possible for opposition parties and scientists to expose what they see as a chimera, and despite the control of the press, the debate was reported in Egypt's biggest newspaper.

While domestic opposition could not make a strong stand in Turkey, an international coalition effectively politicised the issue. An oppositional international NGO coalition instigated a redefinition of hitherto ill-considered aspects of the project, notably the fate of adversely affected groups. The flooding of Hasankeyf gave opponents a dramatic image to latch on to and sharpen conditionality for bilateral loans. Export credit guarantees for the foreign contractors depended on donor state approval, so the INGO coalition targeted Export Credit Agencies (ECAs). When guarantors withdrew one by one, the Ilısu dam looked doomed.

9.5.3   *COUNTERSECURITISING MOVES – COUNTERSECURITISED VALUES*

The way flood risk is managed can bring (unwanted) changes and create new risks. If a local community or NGO sees projects as threats to existential values, they may defend themselves against the project. Like states, they claim 'a right to use whatever means are necessary to block a threatening development' (Buzan et al. 1998: 21). This brings a different form of the 'defence (or security) dilemma' we encountered in Chapter 4: the presumably well-intentioned flood defence efforts is framed by particular stakeholders as a vital threat, leading to mutual antagonism and, potentially, escalation, especially if they do not keep communication channels open.

In a securitised state, water projects are almost automatically securitised, but it is clear from interviews and project literature that flood managers in all non-securitised context also presumed that their intervention would be welcomed as a common interest. The *national security interest* was considered good enough reason not to discuss flood policy with local citizens in Ilısu and Toshka, but also, initially, the Ooij polder and Tangail. Initiators were happy to advertise the project, but not to open discussion that might call the project into question. In each case, however, the 'selling' approach opted for was not as successful as hoped for and in the Dutch, Turkish and Bangladeshi cases ran up against a successful counter-information campaign.

The Bangladesh project triggered unease with their region being used as a guinea pig area for an untested technology developed by Westerners fanned protests against the project. Several

NGOs feared for local livelihoods being threatened by Green Revolution technologies introduced through FAP. An apparent BWDB indifference to the outcome of the consultation exercise failed to induce trust in the project or its initiators in an already antagonistic setting. This made the flood scheme a *human rights* issue in the non-European schemes while in Europe, cultural and landscape/natural values were securitised as at risk and untouchable.

All projects were pictured as at threat to the environment. (Note that in Britain, 'the environment' is also taken to include people's properties.) The river engineering projects in the Netherlands and England were a response to earlier environmental protest, claiming hard defences destroyed natural and landscape values, such as tree lines. 'Nature development' was presented as an economic compromise between security and environmentally sustainable engineering, with more natural banks, wetlands and Scottish cattle. But local protesters resisted developed nature, as they liked their more manicured cultural landscape just fine. Moreover the modality to keep the project economic, gravelling, would bring nuisance and ugly pit holes and disturb peace and quiet. In Britain cultural heritage included the untouchability of Windsor and Eton and Agar's Plough (an archaeological site).

In Britain, the Jubilee channel was framed within an overarching city vs. countryside antagonism. Before the 2003 flood arrived, neighbouring parishes felt their peace and quiet, landscape and safety was sacrificed for Maidenhead, pictured as a commuter town for media types. The 'uninteresting' label the Environment Agency put on the Maidenhead area to legitimise its environmental enhancement in planning the channel was challenged by cultural heritage and landscape values defended by local stakeholders. They perceived the intervention as an (urban, centralizing) intrusion of their territory and heritage values that do not need improving or sacrificing.

In each case, a peripheral area felt the need to defend its cultural integrity to an intervention. (I)NGOs and citizen platforms presented themselves as the defenders of this integrity. Citizens rejected their government's developmental ambitions with local water and space – feeling that neither their landscape nor their culture needed developing.

Health featured in both European and non-European cases. Stagnant water attracts parasites that bring diseases. Water storage projects in Bangladesh, Egypt and Turkey were feared to promote the spread of *kala-azar*, malaria and bilharzia. Even in the temperate zone, on the Maas, a citizen worried about malaria but could be assured. But this was not what rallied opponents into a discourse coalition opening up a conflict frame.

TABLE 9.3   *Countersecuritised values overlap sectors*

	Environmental	Economic values	Socio-cultural rights	Human rights	Political/military security
Threat	Degradation of landscape and natural values	Destruction of ecosystems	Resettlement	Safety	War
	Threat to livelihoods	Cultural assimilation threat to identity			
	Housing prices			Health	

The countersecuritised values are summarised in Table 9.3. Like securitisation, countersecuritisation has to resonate with its intended audience. It does not have to be followed up by extreme measures: threats and mobilisation can be enough to make the project initiator think twice, or to convince one's constituency that one has the eye on the ball.

Intense public debate (politicisation) is enough to signal the crumbling of a once successful securitising move. Politicisation in the sense of deliberation was expressed in Parliamentary questions and political lobbying. Non-politicised negotiation won local stakeholders many

placating concessions from project management. However, instead of debate, several conflicts escalated with minimum communication between the warring sides.

In all politicised cases, the discourse of crisis and catastrophe, survival and destruction resonated in the opponents´ discourse. We may call this ´countersecuritisation´ on behalf of civil society or other states.

Countersecuritising moves counter discursive closure with counter-closure, defending non-negotiable values against intervention. This polarisation triggers a threat-defence sequence quite similar to (attempted) securitisation, legitimising conflict, disobedience and, in the case of Turkey, violence.

Undercutting assumptions: Alliances with the epistemic community

While fighting the values, protesters also sought to cast doubt on the knowledge supporting the projects. They co-opted or hired consultants in the expert community that doubted flood scenarios, showed up uncertainties, or provided alternatives. This had the additional strategic advantage of enlisting peers of initiating experts being able to speak the discourse of the initiators (x or non-x) rather than bringing local knowledge to bear (y-language).

'Blue engineering' initiatives were confronted by 'green engineers' while in Europe green engineering initiatives rather than intimate local knowledge of the flood (rat counts, bird flights). In Bangladesh however the indigenous modes of land use and vulnerability reduction received increasing attention in the academic community in the course of FAP-20. In Turkey and Egypt, cultural heritage conservation issues rather than indigenous modes of water management attracted national and international academic interest.

Countervailing arguments were staged in settings for 'speaking truth to power' familiar to project leaders and policy-makers: technical seminars, journal articles, Letters to the Editor in respected newspapers while at the same time, much more antagonistic civil protest grew in the streets and town halls. The next Section will analyse how the conflicts over river interventions escalated.

9.5.4   CONFLICTS AND COALITIONS

It is well known that an external enemy welds together a 'community of friends' inside the fences. A common enemy created a sense of community where there was none before, or where it was fragmented (see in this context also Harries and Borrows, 2006).

People may see the flood or the project as a threat to their way of life, but the fear of a flood threat or outrage over its realisation can also create a 'defining Other' (Ignatieff, 1993) where no clear community identity was visible before. a striking common element emerging in the case studies is an aversion to the river management project as a 'foreign body'. The reinforcement and escalation of antagonism over flood protection can be for reasons largely unrelated to the project as such.

The transition to democracy at the turn of the 1990s exposed the Bangladesh project to successful politicisation from a coalition of Bangladeshi and international NGOs. The way radical NGO campaigns are organised may bear a surprising resemblance to military mobilisation (Szerszynski, 2002: 55). In the desecuritised policy context of Bangladesh, England and the Netherlands, opponents took the form of local public protest and a sophisticated *information* and lobbying campaign.

In each of those cases, opponents successfully mobilised the press and/or the political sector, and found a receptive constituency for their protests.

It takes two to turn a clash of interests into an open conflict. In Turkey and Bangladesh the government and donors pictured the opposition to projects as a threat (anti-development, against

national security). A (piecemeal) 'logic of equivalence' built a common ground, a discourse coalition between actors that would not normally find themselves on the same side.

The anti-globalists enlisted a World Bank consultant to write a critical dam resettlement report, the Kurdish Human Rights Project worked with archaeologists over cultural heritage, while the threats of Iraq and Syria against dam funders underscored the anti-Ilısu NGO coalition's point that the project would lead to war rather than peace. In Britain, Turkey and the Netherlands, local authorities acted in tandem, if not always in perfect harmony, with the citizen platforms.

Bangladeshi NGOs had rarely taken an interest in water issues before, but found a common cause to tackle not just state but international interventionism, focusing especially on the Green Revolution technology introduced in the region through FAP. As a result the project started with a standoff between ´ignorant sociologists´ and ´corrupt engineers who don't listen´. Male engineers were confronted by angry women in street protests in Tangail and Dhaka. The images were sent over to the Netherlands just in time to influence the parliamentary debate over FAP in the Netherlands. The World Bank in turn labelled the opposition ´anti-development´.

In Limburg, a logic of equivalence supported the conflict frame equating the Maaswerken with the greed of gravellers, the insensitivity of Delft engineers, the colonisation of Limburg by Holland, the wasteful project management and environmental pollution, the unfairness of ´desecuritising the Maas´ and the 'purple' provincial and national authorities against a Catholic (Christian-democratic) political identity of civil society in the South Netherlands.[434] From the point of view of the Westerners, Limburg remained tainted with the brush of corruption and opportunism.

The citizen platform on the Maas, BOM, made alliances with Belgian gravellers to invoke European antitrust and environmental legislation to challenge the handling of aggregates, crucial to the financial viability of the project. This held back the project for a year.

Such antagonism is not evident from the Ooij case, which however did have a history of resistance to intervention, both expansionism from neighbouring Nijmegen and dike reinforcement works initiated by the water board backed by the Public Works Department. When the Ooij platform failed to get a hearing, it declared war on the Vice Minister and her department. The feeling of acute distrust was apparently mutual: in the Ooij issue, an internal memo we retrieved suggests the Public Works department similarly divided the stakeholder community on controlled flood storage into friends and enemies.

In both cases (if at very different scales and intensities) both protests were framed in terms of 'war' and 'struggle'.

9.5.5 THE CRUCIAL IMPORTANCE OF FELICITY WITH FUNDERS

So far, I have discussed the role of civil society and co-opted experts to trip a project up One actor has been underexposed: the project funder. It appears that the role of the funder is crucial.

Apart from a regimented organisation and information campaign, the success of opposition can be ascribed to their targeting of the project funder. Donor compliance can make or break the project, and impose conditionalities. There are limits to anyone's blank cheque - the initiator of the case studies was never able to completely self-fund the flood project, it depended on the donor's values and assessment of the merits of the proposal.

The elasticity of budgets can be said to be a measure of the felicity of securitising the flood. Once the money runs out, funding becomes a test of the resolve of the government to continue spending whatever it takes to protect the country. When successfully legitimised (securitised), they may be pursued even at crippling cost - 'money is no object'.

It would not be immediately obvious that *funding* so often was to prove an Achilles heel for the project. A new, experimental megaproject is unlikely to have a good cost-benefit ratio. Large infrastructural development projects are seldom economic and invariably turn out to be far more expensive than budgeted for. A Maaswerken project leader only half-jokingly assessed normal budget overruns at a factor π (= 3.1415..) (Interview, 2000). This should not be fatal to successful 'opportunitisation', as repetition of the technology is expected to reap economies of scale and indirect benefits, including political prestige and technical reputation. In both the Thames and Brahmaputra projects, the idea was to select a relatively ´safe´ project in terms of acceptable cost-benefit ratio and low risk of failure, with a view to replication elsewhere on the river. Both technical setbacks and protests put paid to that expectation, so that the logic of a series of channels (Thames) and compartmentalised polders (Brahmaputra) did not materialise and adjoining areas remained unprotected.

The Netherlands securitized rivers and Egypt's securitized political sector might be expected to have saved such projects despite the cost. When the Dutch Delta Works sea defences were planned in the Netherlands, the decision was made first – the cost-benefit analysis could come later (Smits *et al.,* 2005). The Netherlands currently spends about 1% of its state budget on flood defence, so that budget overruns would not put the Treasury under stress the way it did in Egypt and Turkey. Still cost turned out to be an insurmountable financial constraint in the Maaswerken negotiations. The cost issue was deferred until the end of negotiations. This procrastination however may have been a strategic mistake, as with the passing of time and no repetition of the event, the momentum provided by the flood window was faltering while the cost spiralled, cost recovery was a self-imposed inviolable bottom line. Peripheral Limburg relied on core 'Holland' for its funding. The Maaskaden (emergency flood defences) episode aligned with national emergency legislation. After 1997 the two sides, despite being project partners, did not see eye to eye over the 'security-ness' of river management on the Maas. When the local authorities of Limburg presented the Maaswerken as a security initiative, they ran up against a veto from the Public Works department, who refused to disburse emergency money in 1997. Five years later, the Maas director had to leave, in part over the excessive administrative costs he was running.

In Britain river schemes had never been very large, and the overall cost of the Maidenhead project (GBP110 million and counting) has been much criticized by local stakeholders. MAFF had the power to decide the fate of the EA by insisting on cost-benefit criteria and eligibility criteria, especially a positive cost-benefit ratio, for the crucial 15% grant in aid.

In two cases the financial aspect appears to have been an ex-post legitimation so as *not* to fund or continue the project.

In the Ooij, the securitiser had seemingly allocated the money to carry out the plan. The chairman of the platform did not win by questioning the morality, how the government who is supposed to protect its citizens could propose to take a 1 in 1250 risk of drowning them, even if to save others. They won the battle when they located a report saying the project was not viable in cost/benefit terms, a point specifically singled out by the Vice-Minister when she announced shelving controlled flood storage.

Unlike the Netherlands, there was a serious national (rather than project-level) rather than self-imposed cash crisis to contemplate in Turkey and Egypt. This financial pinch opened a window for an *ad hoc* discourse coalition of co-riparians, NGOs and eventually parliamentarians in Turkey and national political parties and press in Egypt to target the project's lifeline: money.

To sustain disproportional outlay, a powerful donor is required who will keep furnishing money without strings attached. There appears to be heavy overlay between different layers of the 'cake', between donors and recipients, core and periphery. A complicating factor for successful securitisation in both the Dutch, Bangladeshi and Turkish case studies, then, is that the

decision to securitise water is embedded in regimes at other scales, in which different rules may apply. The links brought in powerful 'audiences' that do not necessarily respond as hoped for, reducing the felicity of security mode for the river management project.

When these are aligned, it can help the states in legitimising their choices: an internationally hegemonic securitisation, the 'war on terror', justified local anti-terrorism measures (Turkey vs. PKK), international outrage over flooding justified large investments in the Flood Action Plan. But when the two spheres are moving out of sync, things look differently.

If the international context is *not securitised* non-emergency rules of competition and accountability apply on the international scene. But they proved rather elastic, given the need for donors to boast successful projects, and can use them to improve their position..

The Turkey and Bangladesh projects had to parry the overlay of donors, who support the flood management effort but attached ability conditions to their support.

In the Bangladeshi projects, global outrage with the human toll of destructive floods legitimised an all-out effort to control the flood. The French proposed a control approach despite NGOs pointing out that both Dutch and local engineers had concluded the river will not be tamed. But flood control proposals were not accepted by the key donors, the USAID and UNDP. The US Corps of Engineers had discarded the control option decades ago. They opted instead for controlled flooding and flood proofing. Donors also attached 'good governance' strings such as participation and a decent Internal Rate of Return. The economic rate of return (EIRR) however only appeared as a criterion in the evaluation after the project was closed. The Dutch Minister for Development Cooperation had allocated EUR 7 million extra in 1994 despite a negative report from his inspection on economic merits. It appears that other donors had stronger concerns about financial viability than the Dutch, whose prestige as water experts was also at stake.

In the Turkish case, donors made export guarantees conditional on environmental and social conditions, such as an improved resettlement plan. International overlay splits the country in two (after Jacoby, 2005): there continues to be a schizophrenic tension between a securitised, peripheral Southeast concerned with military and economic control and the Kurds in Northern Iraq as closest concern, and a desecuritised, semi-democratised westernised centre (West Turkey) with European aspirations as an attractor[435], which enables it to impose principles of 'good governance' such as human rights and a de-emphasis of the Turkish army (Diez, 2000)[436].

In Egypt, the national funding crisis can be expected to reduce the size of the frankly illusory Toshka project. But the Egyptians were in a better position to isolate themselves from the international overlay. They have indefinitely delayed the next phases of project rather than depend on the outside world for the project's projected $90 billion budget. As there is no dramatic media-friendly focus of environmental or cultural damage either. This keeps the debate largely outside the scope of NGO and international critics.

9.5.6 OUTCOME OF SECURITISATION, NONSECURITISATION AND COUNTERSECURITISATION

All schemes under scrutiny here became subject to some securitising moves, but *closure* due to the flood itself was only pronounced in the Netherlands. All schemes also became subject to politicisation, despite three projects starting in a securitised political context, and attempts to include a degree of participation in the remaining projects. It was to be expected that the 'induced' inundation of Ilısu would elicit contest. But when I started the research project in 1998-9, I did not expect *all* schemes to get into trouble. By repoliticising flood policy, these claims also reopened the ´flood gates', i.e. undoing the closure to alternatives, compromises or even

discontinuation of the project. The outcome in each case (except that the 'jury is still out' on Egypt) was for initiators to change, delay, shelve or prevent follow-up of the project or policy.

The security claims against the projects had an impact that may have surprised even its enunciators. The controversy over Ilısu hit the international press at a time when Turkish relations with both Syria, Iraq and the Kurdish population were improving. The claim that FAP-20 would create a dust bowl, has not been borne out in practice.[437]

In Bangladesh, the Netherlands and UK, the confrontation with opponents at national and international level meant the reformulations of the project and placating concessions, making the project more in line with 'living with the flood' concepts. The success the antagonists of the project managed to reap ranged from the shelving of the policy (Ooij), to the abortion of plans for replication (Bangladesh). Moreover, it secured the opponents a place at the table in future planning (co-optation).

Yet, despite the success of both nonsecuritising moves and countersecuritising protests, the projects did not disappear. The modalities of handling cultural and social concerns due to the Ilısu dam, may have been modified, but the dam and its reservoir are under construction as intended. Political and scientific misgivings have not changed Egypt's determination on colonising the Western Desert. Compartmentalisation was not immediately replicated, but found its way into later Asian Development bank projects in Bangladesh. Controlled flood storage was shelved for the Ooij polder but its necessity appears in several recent reports from national planning councils (Pols *et al.*, 2007, VROM-raad, 2007) on the future of Dutch water management. The Maaswerken got new management and started work in 2005 and the Jubilee River has been repaired. While it is fair to conclude on the basis of the six cases that politicisation is inevitable, it is equally valid to note that once started, projects are unstoppable, whether securitised or not. The dogs barked, some bit, but the caravan moved on.

TABLE 9.4   Outcome of politicisation for project

Case study	Hege-monic actor	Project initiator	Artefact	Securitised context	Project legitimisation	Opposition (discursive alliance)	Effect on project
Egypt	President	President	Channel, irrigations scheme, new city, airport etc.	State of emergency	Development, population pressure	Experts, domestic political parties	(Silence)
Turkey	DSI	DSI	HEPP dam	State of emergency	Development, terrorism	International & domestic NGOs	Delay, restart
Bangla-desh	BWDB	Donor	FCD/I scheme	Dictatorship, flood aftermath	Safety, food security	International & domestic NGOs	No follow-up after project end
UK	MAFF	EA	Channel, part natural banks, part concreted	-	Safety, nature	Parish councils, county council	Second channel
NL-Maas	RWS	Province of Limburg	*kaden*, widening, deepening	Flood aftermath	Safety, nature, shipping	Citizen platform, NGO	Delay, restart
NL-Ooij	RWS	RWS	structures and sluicegates	Flood scenarios	Safety downstream	Citizen platform, experts	Shelved

The hypothesis proposed in Chapter 1 assumed securitisation to be the norm. This turned out to be false: it appears from the analysis that the securitised and desecuritised 'spheres' are connected by spatial and temporal links, influence each other and to a degree depend on each other. This brings in a contextual understanding of how projects relate with the felicity of moves

for closure: while a flood helps a project, protest hurts when it finds the funders' ear. The overlay of hegemonic de-securitisation, emphasising choice and rights, appears to defeat local securitisation necessity and exception. These links between the securitised locality/episode and desecuritised overlay invite the question what 'peacetime' decision-making on security issues looks like. As this is not a well-theorised area in security studies, we will recall the precepts of ´peace logic´ and draw parallels with security when making 'peace with the river'. After elaborating on this logic, we shall look into the politicisation of the 'peace logic'.

9.6 PEACE WITH THE RIVER: THE CHALLENGES OF RIVER DESECURITISATION

European water management has recently been witnessing a notable discursive shift from structural flood defence to a ´risk approach´ and ´Room for the River´ initiatives. The river is not frightening, it is now promoted as ´fun´ in European projects such as *Freude am Fluss*. Since the above has shown that even in securitised contexts attempted securitisations were compromised, it is all the more relevant to take a closer look at the constitution of desecuritised water management. Chapter 4 we encountered a parallel shift from ´water wars' (securitised) to 'water peace' (desecuritised water management. That chapter considered what it means if water is *not* expected to lead to war. Below it is assumed that the same obtains for the desecuritisation ('de-disasterisation') of high-water events.

If water is no longer considered an emergency issue by the key players, we would expect a situation where 'closures' are opened up: the state is no longer automatically the lead security actor, rights and freedoms cannot be shored up for the common good, acceptance of sacrifices is not self-evident. I will discuss each of those in the context of the case studies. It will appear that not only Bangladesh, Turkey and Egypt had trouble integrating these principles but also the Netherlands and Britain.

1. Reflexive desecuritisation of the river

The current state of the art in disaster studies recognises that the way society is organised produces hazard in a complex interplay of natural and social forces (Parker, 2000, Hilhorst, 2003). This emerging 'holistic' paradigm (Green and Warner 1999) sees hazard as mutuality, arising 'as a result of the social, economic and political order, which is transmitted through natural and semi-natural processes'. They are a function of the 'normal workings of society' (Parker, 2000). The way we control nature to handle water thus adds to our own vulnerability to floods. Unwise land use impedes runoff while dikes displace risk, increasing rather than decreasing vulnerability by raising dikes (Disco, 2002).

This 'internalises' agency in risks that were previously attributed to external agents 'Reflexive modernisation' (Beck, 1992) suggests a smooth, anonymous process of 'adaptation' and 'adjustment'. It appears however that it was the politicisation of a closed security frame that brought different risk (security) conceptions to the table. In the 1970s and 1980s it became evident over the loss of cultural and environmental values due to flood defence led to the politicisation of sea and river defences, which in turn led to a national consultative commission proposing lower risk standards, green diking and alternatives to diking. Treating water as a friend, giving it space, and using 'green' technology for natural embankments as practiced in the UK and the Netherlands, means to accept certain self-organising, 'chaotic' aspects of the river.

The newly acceptable freedom for the river is relative: it allows a greater degree of uncertainty, but within discrete limits. This became clear when the environmentalists initially advocated the

'ecological flooding' of polders in the Rhine basin. A flood is a great opportunity for environmental restoration.

When the Ooij polder was slated for flood storage, Gelderland's provincial environmentalist umbrella advocated *un-controlled* flooding. But the local chapter changed their minds about this 'let it flood' alternative when protests to uncontrolled flooding in the Ooij grew louder and their own houses would be affected. Total liberation of the river can rejuvenate natural systems, but also has the potential to necessitate destructive social adaptation. Even advocates of 'living with the flood' will accept the flood only up to a point.

More flexibility does not detract from the fact claims that Dutch engineers are still unprepared to accommodate a river's inherent instability and spontaneous vegetation (roughness). We do not like the river to take any space it likes. Man remains in control of the river (van Hemert, 1999).

Another limit to river management is the realisation that a rule or artefact that promises collective safety can invite unsafe behaviour. The safest dikes attract investment and settlement behind that dike, in spite of the residual risk of a breach which will then wreak more havoc in areas lulled into a false sense of security. The sea dikes protecting the West of the Netherlands are an extreme of this: it continues to predominant in terms of lives, assets and vital infrastructure, but has no evacuation plan. Both in Limburg and Maidenhead, building defence structures legitimised and protected further construction in areas that previously had been set aside. This leads to the ´control paradox´: a lock-in situation, where you seek to improve the safety of a system but end up more vulnerable people as people feel safe and take more risks (Immink, 2007).

In the Dutch river areas the tendency has been to restore a liberal settlement policy on the river subject to public-private provision of safety measures. The already tolerated municipal leniency toward floodplain development in Limburg was sustained and vindicated when, after a 10-year moratorium, the Dutch lifted the ban on flood plain development in 2005 allowing innovative building in floodplains. Freeing up 15 locations – institutionalizing risk acceptance – the Netherlands has replaced a ban on developing the flood plain by a bet on 'spatial quality'. Riverside land traditionally was a neglected area, a kind of wasteland. Making the riverside prettier by improving natural values could also attract investment to pay for beautification interventions.

Positive shocks and adaptation to stress?

The 'water peace' narrative also evidences a belief in the salutary effect of (impending) crisis, which forces reflexivity and adaptivity to 'resource stress' and climate change. The theory of punctuated equilibrium in ecology, on which Baumgartner and Jones (1991) draw, points at the positive role of systemic shocks in changing the status quo (Gould and Eldredge, 1977). In the 'water peace' discourse, a system as a whole adapts – the whole transforms to a new 'steady state', more diversified, more scarcity conscious.

As we shall see in the third and fourth subsections, the reflexive turn involves participatory ´feedback´ mechanisms that might democratise decisions impacting on security, with the potential to compensating and sharing the sacrifice. The fifth, on the other hand, introduces a ´vulnerability´ approach, alerting us to structural causes of risk differentiation and resulting limits to freedom for river and people,

2. Reframing security as risk

The realisation that the river cannot always be controlled is hard to take for control-oriented engineers. Yet, the Mississippi flood of 1994 in the USA, the failure of the Brahmaputra right bank embankment in Bangladesh and the high-water events of 1993 and 1995 in the Netherlands made it clear that there is always a possibility that the unthinkable flood can still happen despite the defences. The reflexive turn alluded to in Ch. 4 drove home the insight that human

interventions may precipitate rather than reduce risk. A sense of 'ungovernability' and 'governance failures' became a focus of attention for a while in the late 1990s (e.g. Stoker, 1998).

To overcome the defeatism, a re-labelling of problems has been notable in the environmental sector. Security is now known as risk (Giddens, 1999). A focus on risk means conceding defeat every now and then, but if well-prepared, risk does not have to have overwhelming consequences. In the past decade, the Netherlands has seen a clear shift from security, defined as the strength of the dikes, to the management of 'residual risk', which focuses on the impact of flood event on the territory behind the dikes as well as undiked floodplain.

Research into uncertainty has been going on since 1995 within the Public Works department's research institute RIZA. But uncertainty proves politically unpalatable, it makes politicians and citizens feel insecure and engineers look incompetent (RIZA researcher interview, 2005). This appears to be no different in the UK, if we recall the Taplow parish councillor's outrage to discover that the flood would not be fully and indefinitely contained by the Jubilee Channel.

In the Netherlands, a redefinition of uncertainty in protection as 'failure factors' sounds like certain knowledge, and is thus acceptable (interview, Silva, 2005). Currently the European Interreg programme funds the *Freude am Fluss* project (enjoyment of, or by, the river): living with the river rather than being afraid of the river. While the environmental trend was continued with the Space for the River approach, it was attempted to also make 'Space for people'. The below will discuss the consequences of this philosophy in more detail.

3. Regime space for people? New actors in river governance: *[Security co-production - Co-optation or cooperation]*

While the river is constrained by dikes and channels, many can afford to ignore the challenge and leave it to the experts. Development controls reduce freedoms, but bring no responsibilities. A risk approach however requires the co-operation of many interdependent stakeholders. The switch to the risk approach seen in the European countries and for all practical purposes, Bangladesh, necessarily calls on civil-society compliance and co-operation more than a hazard approach, whether enforced through coercion or spontaneous coordination.

A challenge for water managers is to get the same things done under the peace logic of desecuritisation as you can do under securitisation. Being unafraid of the river is not necessarily reflected in the state being unafraid of people and people being unafraid of the state. To provide security river managers now have to clear a host of hurdles like cost-benefit analysis, openness, accountability, deliberation and development pressures.

A desecuritised approach to perceived dangers either means toleration of the threat or managing securitised issues in a non-securitised ways, resisting them without violating normal rights and rules (Roe, 2004: 285). Non-state actors are expected to take direct responsibility for security provision, by (increasing coping capacity) or required to avoid aggravating the problem (reducing challenge).

The transformation from securitised to desecuritised decision-making brings a new political arrangement or arena (Huysmans, 2002) with particular governance challenges. This arena transformation could, in principle, mean the emancipation of marginalised actors (Aradau, 2001) and democratisation of process.[438]

The trend under liberal Dutch Water Ministers not to treat the river as an enemy anymore has important consequences for the division of responsibilities. In the Netherlands, for example, protests against dike reinforcement had not only involved protest against vertical flood defence structures in the horizontal landscape, they also sided against technocratic, authoritarian interventions (van Hemert, 1999). Collaborative planning (Healry 1997) promises better checks and balances, a balance of power that can act as a brake on ill-conceived projects and stimulate creativity (Wolsink 2003).

Since 2003 the Public Works department, together with the water boards, officially does not guarantee 100% security. But who will take care of security now? As we saw, other actors in spatial planning are not necessarily willing to prioritise water security in their dealing and to relieve the Ministry of some responsibility. To avoid further free-riding on its protection services, the Dutch water department was willing to lift its 10-year ban on floodplain development for occupation on condition that a wider range of governance actors would take responsibilities in an Integrated Security Chain approach, from pro-action to rehabilitation. This means a *horizontal* (between national Ministries) as well as a *vertical* shift in sharing responsibilities (between national and local level).

Allowing multiple actors to participate in risk management as well as dialogue on planning, without the project getting mired, is a major challenge of river desecuritisation for a river manager. If dikes can break, one needs non-structural measures to cushion the impact. This requires co-operation on the part of those behind the dikes. Minimising damages can involve the co-operation of businesses and residents, who may have to move or adapt their mansions and be prepared to act when the flood comes (dike teams), accept occasional nuisance, and offer and take insurance against unreasonable loss. Initiators in each of the case studies organised different forms of *participation* consulted them at markedly different steps of Arnstein's ladder, and co-opting private and civil-society actors in *implementation*.

Thus, realisation of the Maas works was conceived by the provincial government as a consortium formed with private (gravel industry) as well as NGO parties (*Natuurmonumenten*) to ensure a balance of social, environmental and economic sustainability. The course the negotiations took between 1998 and 2001 indicate that these criteria clearly did not carry the same weight, especially when cost-benefit analysis became a key criterion due to the non-securitisation of the Maas.

The trend towards desecuritisation of the river in the Netherlands increasingly confronts the water regime with a spatial planning regime in which water security is not the core concern but has to compete with other interests (Immink, 2007). Spatial planning in the Netherlands has seen a tendency from social engineering to multi-actor social learning and network co-ordination. In the expert community this created legitimacy for the involvement of social scientists next to natural scientists (Immink, 2007). Not everyone starts on an equal footing: since natural values rarely bring in the economic gain that real estate does, developers begin with a head start. Space for the River easily translates as space for developers (de Boer, interview). Thus, a desecuritised regime creates the very situation for the Netherlands that has marred the EA's ambition of effective flood defence in England. In Limburg, the insistence on budget neutrality meant that environmental concerns increasingly gave way to gravelling proceeds to make the project economically viable. Both gravellers and environmentalists at various points threatened to leave the consortium. But the gravel industry could, and did, hold the project in a double bind as an economic survival issue: their non-cooperation would kill the project, while the failure of the project, so they claimed, would kill the aggregates sector and create unemployment. The environmentalists did not have the same veto power when they drew a line in the sand arguing natural values were put at risk.

4. Stakeholder Participation: 'politicisation' without the politics?

How about involving the project-affected stakeholders in decision-making? We can look at this in terms of who can participate and to which extent, and if it had an effect on the *range of alternatives* considered.

It appears that while participatory structures are now experimented with in Turkey and Egypt, stakeholders had little or no influence on either project election or implementation. The next few paragraphs therefore will only discuss participation in Bangladesh, England and the Netherlands.

In the UK and Bangladesh flood schemes, project democratisation through public participation was part of the innovation, unprecedented in flood projects. Stakeholders were consulted about their preferences beforehand, while several NGOs were co-opted into the project preparation.

In Great Britain, the debate over the need for the project was curtailed with references to the 1947 floods. The publicised number of alternatives (492 !) is impressive, but the selection subject to strong NRA influence. The NRA commissioned research into a notable alternative on smaller-scale flood proofing of neighbourhoods, which would have relied on much greater community awareness and involvement (Penning-Rowsell *et al*, 1989). The report remained unpublished and beyond competition. Institutional stakeholders did have more informal influence at the early stage when archaeology and historic values necessitated changing the routing of the channel. The subsequent public consultation rounds and subsequent public hearings in the 1990s led to many placating concessions in project implementation.

Opponents however developed and tabled alternative relief channel options, notably Taplow Parish Council and the County Council of Buckinghamshire. In contrast with the Dutch alternatives, these alternatives consisted of different, mostly *smaller* versions of the same channel. All these new alternatives were, on the whole, rejected by the NRA.

In Bangladesh, the auspices for public consultation were initially bad.[439] The selection between the eight FAP reports took place under a securitised political (dictatorship) context, outside the public view[440].

The later changes to the FAP-20 project were not a result of new alternatives being brought in, but of risk assessment as well as public upheaval. Two out of the three original project sites were dismissed after a cool assessment of natural risk - the structures being at high risk of being washed away. Out of the four options originally developed for public consultation, technical option ´C´ for the Tangail site appears to have been 'steamrolled' by the BWDB, over the objections of the Dutch side and, NGOs claim, those of the local population.

The participatory exercise on alternatives for flood control was rushed through and its results ignored by the Bangladesh Water Development Board. However, after this troubled start the most far-reaching forms of participation of all schemes were tried by instituting a multi-stakeholder platform (MSP) structure for managing the sluice gates. The compartmentalisation project sought to democratise the distribution of the ´residual risk´ from monsoon floods between stakeholders. The participation structure for FAP-20 was refined after the donors threatened to withdraw their support. The 'poldering' set-up however ran up against scepticism on the part of Bangladeshi project leaders. It can also be said to ignore and therefore institutionalise a social system marred by patriarchal, violent social relations (van Betuw 2004).

Local involvement was extended to the participatory implementation (construction and Operation and Maintenance) phase, with local groups actively building embankments, hoping the project would be self-managed after the project's closure. This might have been given a warmer welcome if the local stakeholders had felt they had had a say in it and a budget to secure continued Operation and maintenance after project end.

On the Rhine, a range of intermediary organisations were involved in the selection process of areas suitable for controlled flooding. Organised regional civil society and private sector umbrella organisations were consulted in focus-group settings but not locally affected social and economic interests. While similar to the Bangladeshi projects, it was not deemed opportune to consult affected stakeholders in the Ooij polder. Despite several platform participants having been involved in earlier protest against dike reinforcement pre-1993, Ooij dwellers considered dike raising as a preferable alternative to controlled flooding. This was dismissed by the Public Works department as too expensive. Currently compartmentalisation is again considered as an option

By the time the decision on alternatives on the Maaswerken was to be made, the momentum of flood securitisation had likewise run out. The Maas project thus had to comply with a legal (EU-induced) obligation to provide and consult the public on several alternatives. The public was duly consulted for the Environmental Impact Analysis on the Maas on their preferred options. The Environment Impact Analysis was dismissed by the Dutch EIA evaluation commission for not considering some alternatives well enough. Time is money; and spiralling cost and economic strictures in the end forced a deviation from any of the previously proposed alternatives. This in turn led to the temporary departure of the environmentalist project partner from the project consortium and a severe dent in public confidence. After tough negotiations on project realisation, a variant outside these options was selected. When the project threatened to disintegrate, a range of stakeholders were consulted behind closed doors. Informal relations between stakeholders and provincial project initiators which had chilled after the Public Works department took over 1997, were revived in March 2001 to break the project impasse. When a local action group successfully invoked European antitrust regulation, the project was again delayed. The provincial government initiators recognised the need to communicate much better and established productive relation with BOM, the regional citizen platform.

If we see public-initiated participation as an attempt to share control in process and outcome with stakeholders, all projects, then, prove definitely flawed. In each project, the initiators did not treat their project as a 'wicked problem', but as a technical challenge that needed to be 'sold' on stakeholders. In each case, however, the initiators framed the participatory process in a way that gave them a great deal of control, including the option of ignoring the outcome. The modality of public consultation chosen in each case presupposes a form of (participatory) negotiation that stripped participation of potential political edges. Both Bangladeshi and UK project initiators freely volunteered in interviews and writing (Gardiner, 1996) that theirs was a 'selling' approach, while the Dutch project approach in practice displayed the same strategy. This type of participation assumes that sensible people will respond to *reason* and agree with each other when confronted with 'the evidence'. The role of sociologists in FAP-20 appeared to prepare the ground for the right message.

In all flood management cases, the formal mode of participation offered was found wanting and too late in the process by some stakeholder groups. Directly affected stakeholder groups (local citizens in Hasankeyf and the Ooij polder) did not get a hearing: or chose to drop out of the (organised) participatory processes (*Federatief Verband tegen Ontgrondingen* in Limburg). Those can be expected to have brought in a rather different problem definition. The limited leverage the participants had made it attractive for stakeholder groups to opt out of the process, lobby influential decision-makers or attempt to cause a commotion in the press or donor community. Excluded actors and perspectives (reasoned they) could only find their way into the process through unplanned types of participation. 'Participation' can also be understood in its 'Longian' interpretation (Long, 2001): 'participation' does not only capture social compliance with externally organised processes with invited participants, but also spontaneous social engagement with a view to influencing its outcomes: protest, contest, obstruction, deviance.

But interestingly, various actors chose to co-operate and resist *at the same time*. This was encountered both in the international arena, on the Nile and Euphrates, where basin co-riparians were not consulted on the decision to build a mega-project on the river and predictably exerted pressure and threats at the political level. At the same time those same co-riparians participated in technical exchange and co-ordination meetings. In the other three projects, local groups likewise talked, formally or informally, with the project initiators while at the same time 'participating' by engaging in protest or political and legal contest, often breaching the vow of confidentiality. The issue of openness of information and communication is elaborated in the next section.

Information and communication

While securitised decision-making invites secrecy and manipulation, desecuritised decision-making would be expected to be more transparent and accountable. An open exchange of information requires availability of project information in the audience's language with little trouble, in accessible language. In the cases under review, the degree of openness ranged from suppression of an EIA in Egypt and its delay in Bangladesh and Turkey, to a surfeit of information in the Maas and Thames projects.

Information itself may be withheld or even classified (securitised) invoking national security. A plethora of reasons can lie beneath non-sharing of information, from a desire to monopolise strategic knowledge, a sense of vulnerability down to sheer embarrassment because the information is incomplete, ill understood, disorganised, or inaccessible (observations by Van der Schans and Verhallen, pers. comm., 2003) which can breed distrust and hostility. In Bangladesh, researchers and consultants complained that important findings were whitewashed or suppressed. This meant alternative perspectives were suppressed or massaged.

Community platforms may be important as information brokers. Desecuritisation exposes a project to Right-to-know legislation (the Aarhus Convention: UN/ECE 1998, see Verhallen, 2007, Blaikie *et al.,* 1994), which gives affected parties information that helps them position themselves, if not always with an eye on the common good. The itinerary of the transparency of the Flood Action Plan for Bangladesh is especially intriguing: a progressive information desecuritisation/dis-closure process started out with no information in Bangladesh on FAP; then public reports of meetings with ever widening groups, followed by a plethora of English-language studies that however according to the interviewees were heavily edited. In the Ooij, the Platform managed to unearth a critical study underlying the advisory report on emergency flood storage, while in the Maas, the absence of the minutes of the closed-door meetings with stakeholders during 6 hectic months in 2001 to salvage the Maaswerken plan, meant culpability before the Council of State for unlawful secrecy – or more precisely negligence for lack of process documentation.

When negotiations have to take place in a 'glass house', this makes it harder to reach tentative agreements. Early divulgence of plans for a river planning project that will involve a change in land use, exposes project initiators to serious risks: it invites speculators to buy up land likely to be needed for the project, while early publication of 'search areas' also has invariably given rise to vocal protests especially from farmers whose land *may* be project-affected.

5. Norm differentiation

The shift from hazard to risk in the Netherlands means that different standards can be applied to areas with different population and asset densities. The calculation of required safety per area now explicitly introduces cost-benefit considerations in risk management, which can lead to is so-called 'norm differentiation´. Economic calculus means that areas with the same probability bring a higher impact in an area with many economic assets.

In the Netherlands, there always was an institutionalised difference between the level of protection between coast (1 in 10,000 year events), main river area (1 in 1250) and diked Limburg (1 in 250). The best protected areas are those where most economic assets are hoarded. Within these three zones, however the protection standards were supposed to be equal, although engineers knew better than that.[441] The eventual successful extension of the safety standard to all of Limburg fixed this, but by then the government had declared the government was not going to guarantee it.

In Britain, the Association of British Insurers, ABI, warned in 2000 that from then on, premiums would be differentiated according to exposure and entire areas excluded from cover. This would shift responsibility wholly towards home owners (Huber, 2004: 13). Insurers also tried to make the complicit government behave: The Association blamed government for more

generally neglecting flood defence, that is, for not making the rivers behave[442]. But it also called for a stronger stance on floodplain occupation, that is: making people behave. To avoid paying higher premiums, citizens adapt their behaviour. This way, people's freedoms are still compromised – not by public policy, but by private risk management.

The (re)construction of risk has its winners and losers. In parallel with the 'hydro-hegemony' school in security studies introduced in Chapter 4, the next section will bring in the vulnerability approach which attracted much attention in disaster studies in the 1980s and 1990s. The vulnerability approach notices that risk has its winners and losers, and that its causes may be systemic and institutionalised. This constitutes a consistent critique of the five tenets of 'water peace' just discussed.

In sum, the appreciation of the negative consequences of intervention and of the positive aspects of water for its amenity, landscape and natural values may lead to a 'greener' engineering approach and enable reframing of the hazard approach to a risk approach - from foreclosing any flood risk to resilient response. This opens up space for the consideration of alternative problem frames, alternative solutions and the involvement of alternative actors. Security is a co-production: local authorities, the market (private insurance, consultants) and civil society (watchdog NGOs, CBOs) take responsibilities, while international regimes also impinge on lower-level decisions. Economic criteria (favourable cost-benefit ratio, cost recovery), protection of property rights and transactions in a deliberative planning process between initiators and stakeholders. Security standards can be debated and negotiated, which can lead to norm differentiation in risk.

In practice, participation is limited, as decisions remain controlled by experts. These however rarely tend to be pleasant surprises to local stakeholders.

River management projects bring risk redistribution. A desecuritised approach relies on the co-ordinated coping capacities of the different stakeholder groups. While current writing on adaptivity and resilience tends to be concerned with the resilience of the system as a whole (e.g. a river basin), political ecologists would zoom in on how such adaptation affects different people in different ways. Below, I will zoom in on conflicts that are specifically related with the distribution of risk and vulnerability, alleged to result from desecuritised governance practice such as cost-benefit criteria. A ´vulnerability´ or political ecology approach does not see these problems as incidental. Political ecologists see vulnerability to floods as conditioned by their systemic contexts, the workings of the political economy (Bryant and Bailey, 1997). The following Section delves further into this.

9.7   *CONFLICT OVER RISK DISTRIBUTION IN 'DESECURITISED' PROJECTS*

9.7.1   *COUNTER-BLAMING AND FRAMING: NOT ENOUGH PROTECTION*

So far, we have encountered protests against flood schemes, claiming other values are more important than flood security. But much conflict on security projects were not directed against flood protection, but concerned the perceived sacrifices to protect others - *selectivity* in protection. As upstream flood works often increase downstream risk (Bakker, 2007), protest from downstreamers in Britain could be expected[443]. But upstreamers (Ooij) made it clear they were not prepared to suffer nuisance and *increased* flood risk to guarantee the safety of lower-lying areas. The Ooij, an economically less developed but well-to-do area has to make space to save more developed areas downstream. The Ooij polder dwellers did not see why their protection should be less important than that of the neighbouring Overbetuwe and Alblasserwaard polders. For the citizens of Hasankeyf, where planned flooding of houses and heritage is a certainty rather than a 1 in 1250 contingency, there seems no local security benefit at all.

Projects in their ´desecuritised´ phase, or those that never were securitised in the first place, are also exposed to criticism that the project does not protect people well enough. If anyone is imputed to have caused, precipitated or failed to prevent the flood, they are held to account for placing others at risk.[444] As Delft engineer Frans Klijn observes[445], if science and engineering do not release us from risk, it means floods are not considered natural disasters, but engineering failures. Thus, like securitising moves on the part of project initiators, a security threat was named and framed, attributions of cause and effect are made, blame placed[446] and responsibility for the remedy identified in the local domain.

The Jubilee Channel was never really securitised, the project had to be realised without special pleading. The Environment Agency, moreover, could not boast the same credibility as its Dutch or Bangladeshi counterparts, while a source of blame was readily available. The Thames channel project got into real trouble when the project failed to withstand the flood. Residents in the downstream of Maidenhead saw hundreds of houses flooded in January 2003 and blamed the channel project itself rather than the weather event. They took the EA to task on this for imputed breaking of the safety promises to Datchet citizens made during at the 1992 Public Inquiry. A strenuous denial of responsibility on the part of the river manager increased the antagonism between downstreamers and agency. A parish councillor blamed the ´value engineering´, cost-reducing exercise, for compromising the security standard. When several consultant reports confirmed structural faults in the EA's 'green engineering' design, the Agency passed the blame on, litigating against its main subcontractors.

The blame discourse in these stories does not evidence a rejection of the initiator's security frame, but rather a call on the river manager to provide more protection. The implication of the way the complaints were framed was that if the collapsed 'green' banks of the Thames bypass had been constructed with good old-fashioned engineering, they would certainly have held. If the Ooij could be protected with compartmentalised dikes rather than flooded, people would feel a lot safer. On the Maas residents of isolated properties outside the parishes to be embanked refused to be abandoned to make economies. The same sentiment is expressed in the non-acceptance of local residual risk (Taplow, Lomm): was the project not supposed to prevent *all* flood events?

These civil-society voices are joined by Dutch experts who argue for old fashioned dikes instead of investing in a ´medieval´ (Boorsma, 1999) system of detention and calamity polders, and in Britain by structural engineers finding fault with the green embankments of the Maidenhead channel after the 2003 floods.

Conspiracy stories buttress insecurity stories: in interviews both Ooij and char dwellers outside Tangail claimed they heard explosions (Tangail) or saw army engineers preparing to explode a dike (Ooij) to provoke a breach in 1995. Such stories were never proved nor disproved, but evidenced the distrust in the state as protector.

9.7.2 *DIFFERENTIAL VULNERABILITY*

What we call man's power over nature turns out to be a power exercised by some men over other men with nature as its instrument.
(C.S. Lewis, 1947)

The above has raised issues that may be tackled within a liberal 'water peace' paradigm. In this perspective, people have the choice to go and live in less hazardous locations and can mobilise the means and 'voice' to protest and negotiate compensation But from a political ecology perspective, not everyone is in that position. Despite well-known hazard potential, many have no other choice but to settle in flood-prone areas. In western countries, low-cost housing is more likely to be in floodplains. In Bangladesh, for example, simply lacks the space to house people

elsewhere, and the vulnerability school in disaster studies (spearheaded by Blaikie *et al.,* 1994) reminds us, many marginalized people do not have a choice.

Environmental change, whether natural catastrophe or human-induced, affects lives and livelihoods differentially. A vulnerability assessment predicts what may happen to a particular group exposed to a particular hazard (Cannon *et al.,* n.d.). But for the most vulnerable in society, everyday subsistence is a hazard (see e.g. Allen, 2003). The flood itself may not make all that much difference in light of the myriad challenges, and the flood relief may not be much help. In fact, it may turn out to be another hazard.

Whether made under securitised or desecuritised circumstances, both floods and flood policies can significantly change the various different stakeholders´ security positions, making some more secure and others less. Consequently it can appear to stakeholders that not everyone's security is equally important. When flood defence structure (the cure) is seen as more damaging than the flood risk (the ailment), people feel more rather than less insecure. Not everyone has the same opportunity or desire to adapt. For them, security turns out to be scarce and seemingly zero-sum: more security for some means less security for others. Some settings are more likely to create risk and/or maximise impacts on exposed groups, instilling an acute sense of vulnerability and iniquity. The differentiation of benefits and costs seems to be built into their design with seemingly scant consideration for redressing the balance. A political ecology perspective can help us foreground the broader political struggles that the project is embedded in. Such a perspective does not see these disparities as accidental, but rather as the outcome of structural biases: the political economy of flood protection. A vulnerability approach focuses on local security and tends to script the affected stakeholders as victims. The analyst would therefore expect flood protection projects not to target the safety of the poor, except when the rich have also been hit. Above, we discussed security dilemmas and threats coming from an insecure state. Under non-security or desecuritised conditions, the state may withdraw to make more space for non-state actors and bring economic (cost-benefit) and social (participation) criteria.

In light of the constructivist approach taken in this study, the research has **not** expressly set out to investigate and assess the 'objective' distributive effects of flood protection schemes themselves but relied on the interpretations of actors and observers. As we have seen, the securitized projects were ultimately subject to ´desecuritised´ governance criteria. For example, all desecuritised flood security projects were therefore ultimately expected to be legitimised in terms of *cost-benefit calculations.* This economic rationale promotes protection where the assets are, rather than a view that every life saved counts no matter at what costs, and excavation where the most valuable aggregates can be found, to balance the books for the project.

In Limburg (but also in part in Maidenhead) the amount of and proceeds (and VAT) on gravel that can be sold remained a crucial factor for the project's viability, which became acute when the initiators failed to have the project labelled a security project. The Grensmaas project's opponents argued they should not sacrifice the integrity of landscape for the profits of the gravelling and construction industry. The considerable concessions made to the gravel sector could be (and were) construed as another indignity inflicted on Limburg by the powers in The Hague.

Without such concessions, the river projects do not bring an acceptable *Benefit-Cost ratio* are (or may feel) left to their own devices. In Britain, where floods were never securitised at all and cost-benefit criteria appear unassailable, the government has reiterated people's 'own responsibility' in risk management. The points system underlying MAFF (now DEFRA) grant aid ensures the non-funding of trouble spots.[447] Cost-benefit considerations precipitated the selection of Maidenhead over, for example, equally exposed and flood-prone areas on the Thames in Wales. To interviewed local critics, this made the Jubilee River scheme a project for the rich working in the media sector, the elite children educated at Eton and the royals at Windsor, while poorer areas are left behind.

The vulnerability perspective is especially poignant in Bangladesh. Bangladeshi critics had been quick to note in 1988 that General Ershad and the international community only sprang into action when the presidential palace and foreign embassies in uptown Gulshan New Town were hit and the helicopter pad in Tangail prevented Madame Mitterrand from landing there.

The donor's risk assessment involved in the selection of the Tangail scheme brought another perverse rationale: compartmentalisation might not work in a more flood-prone area, as the infrastructure washes away. Thus FAP-20 protected people who were already comfortably safe compared to the underprivileged *char* dwellers nearby. (In fairness other Flood Action projects, notably FAP-3.1, have targeted the security of the *char* people.)

Food security, a strong legitimator of FAP-20, was predicated on green-revolution HYV rice varieties, reducing production risk for farmers. Project initiators kept an eye on the project's Internal Rate of Return. Boosting agricultural production (high yielding rice varieties) was so crucial, that landed farmers were privileged over landless fishermen and women. It strengthened *private property* which Lockeians seek to protect against state domination. The downside is that those without (registered) property or water rights are not (well) protected, as their assets do not feature in the calculations. The Tangailis of Central Bangladesh are used to working the *khas* (common land) and communal fishing. Fishermen and peasants saw the commons enclosed and saw no alternative livelihood opportunities. It legitimised the project enabling private enclosure of the commons (*beels*) driving Hindu fishermen, who are often already barred from landholding, away from their already very limited livelihood, increasing their overall vulnerability. While farmers were privileged over fishermen, townspeople benefited more than the countryside, even though it is in the rural area that the distribution effects of flood risks has the more immediate impact on livelihoods. Livelihoods, now seen as essential to human security (UNDP 1994), are thus not safe from either the securitised or desecuritised risk management practice.

In their official formulations, the Turkish and Egyptian projects specifically sought to *bridge* socio-economic gaps between centre and periphery, which would also stave off terrorism Analysts such as McDowell (1996) however show the welfare benefits of the Turkish GAP accrue to the country's industrialised West rather than its impoverished southeast and perpetuates rather than redistributes feudal land tenure relations. Poor Kurdish town dwellers in dozens of villages have to make way for development projects.

The colonization (enclosure) of the Egyptian desert throws up a sharp contrast between the poverty of the resettled Nubians and Prince Talal's 100,000 ha plot. In response to criticism, the government has also promised smaller plots will be set aside for university graduates and small farmers. The question how many *fellahin* might be persuaded to start again in such an inhospitable area, is at least partly solved with a view to agricultural reform in Egypt, which asserted the property rights of (absentee) landlords. The state apparatus helped owners drive tenants off their lands, with the slums of Cairo or the ´greened desert´ at Toshka as their only place of refuge to start again.

Societal and academic commentators have thus made pointed observations on the socio-economic effects that played a role in disputes over flood regulation projects, and the winners and losers emerging as a result.

However, the protests to differential security rarely came from underprivileged areas. The protest against the Jubilee River did not come from poor Welshmen, but from neighbouring middle-class Taplow and Datchet. The Tangail protest movement had strong 'guidance' from national and international NGOs. In Limburg and the Ooij, organised protest came from well-educated town dwellers united in citizen platforms. These groups have the political access and resources to make a difference. Welshmen and Tangaili landless meanwhile fend for themselves.

TABLE 9.5   Acceptance of securitised and non-securitised interventions

Country	Political sector	River management	
	Securitisation: Political closure	*Securitised; Technical. Institutional closure*	*Non-securitised:*
Egypt	Enduring SoE since 1981	Nile diversion - politicised	Horizontal extension Demand management - politicisation
Turkey	Enduring SoE since 1979 War with PKK	Dam regulation Resettlement – conflictive	Regional development, Integrated Water Management - conflictive
Bangladesh	SoE until 1990, and after 2006	River training French plan 1989 – rejected	Controlled drainage Compartmentalisation - conflictive
NL-Ooij	Special River Law DGR	Mass evacuation - accepted	Emergency flood storage - conflictive
NL-Maas	1995-1997	Emergency structures - accepted	Retention River widening - conflictive
UK	None	CPO - failed	´Green´ channel - conflictive

TABLE 9.6   Type of conflict over river management projects: too much control, too little protection

	Conflict over Protection	*Conflict over intervention/ Control*
Egypt		
Turkey		Capture of commons
Bangladesh	Distribution: Inside vs. Outside project area; Residual risk	Capture of commons
NL-Ooij	*Kaden* Residual risk	Economic risk (investment ban)
NL-Maas	Embanking towns Residual risk Distribution Upstream vs. Downstream	Despoliation of countryside
UK	Upstream vs. Downstream Residual risk Insurers reduce coverage	Despoliation of countryside

State retreat ?

The above approach has cast doubt on the benefits of public, let alone private, primacy in providing security to local actors. While 'desecuritisation' implies that 'securitisation' is always a possibility, the state may disengage from security, either because the danger is no longer an urgent worry (a-security: war has become unthinkable) or because society has found ways to tackle the issue without the national defence apparatus and national political involvement ('depoliticisation'). In Buzan *et al.*'s sense, floods do not have to be 'political' in that they are not a state concern: local communities and local or regional authorities may take care of their protection. Before 1798 in the Netherlands, 1958 in Bangladesh (East Pakistan) and 1995 in

Britain, there was no central river manager bringing in flood protection structures. The trend (if less the practice) in the Netherlands discourse for about a decade has been to decentralise flood management.

The 'post-providential' (Ophir 2004) state makes people more responsible for their own security. The idea is that by devolving power, taking their voice and capacities seriously and entering into partnerships, devolution can empower people. Making physical space for both the river *as well as people* requires the flexible, multifunctional use of space, such as amphibious housing, resilience and preparedness. This has opened a new phase in flood management, 'living with the flood', with a less prominent role of national flood managers.

Living with the flood is, of course, what Bangladeshi and other Asian communities have been doing all along. The 'vulnerability approach' finds that people have little to expect from the state and international organisations, and argue that rather than giving people relief and making them dependent on the international aid (economic protection) system, they should be given help in increasing coping capacities for coping with environmental hazard: reduction, preparedness. A 'sustainable livelihoods' (DFID 1999) approach argues that people have social, environmental, political, financial capital at their disposal. Bangladeshis have learned not to depend on the state and rely on sometimes violent self-help in flood management. A World Bank funded management devolution programme leaves them with the Operation and Maintenance of often substandard flood infrastructure. Still, in Tangail too, some residents called for physical protection by FAP-20 and appreciated hard structures in front of their houses, while thousands of outsiders migrated or fled into the polder in 1998. Bangladeshis are excellently attuned to the normal flood (*barshas*) but few are well equipped to stand the bad, century flood (*bannas*).

Self-management may be the highest form of participation on Arnstein´s ´Ladder of participation (1967), but Cuillier (quoted in Collins and Ison, 2006) notes that self-management can also be a form of *abandonment* if the government simply retracts its support with no compensating provisions and people do not feel safe on their own. Exclusion from national or international solidarity leaves the powerless to their own devices without consulting if non-securitisation resonates with their 'feelings, needs and interests'. Henri Giroux (2006) has called attention to the politics of 'disposability', a concept that appears to capture Egypt's 'politics of indifference' to the fate of the *fellahin* quite well. In the European countries, norm differentiation, liberalised floodplain management and selective insurance coverage releases constraints on freedoms, but can also mean those who can afford it could lead to 'gated safety communities', protected enclaves on private mounds or behind private embankments.

Harries and Borrows (2006), associated with the UK's Environment Agency, argue that expecting people to help themselves in coping with the flood brings anxiety because people do not always have a clue how they are supposed to act. The 'risk management' approach underestimates how people deal with fear (Harries and Borrows, 2006). When people feel challenged by a risk they cannot control, one anxiety-managing strategy is denial. Risk communication and other risk management measures, other than issuing sandbags, raise anxiety without increasing a sense of protection. They advocate two-way communication between flood manager and residents about what people *can* do might help in case of a flood, in terms of the present study, empowering (bringing alternatives) rather than leaving them to self-help. In the West Netherlands the perspective is much more limited so that people quite rightly depend on the sea dikes (Warner, Meijerink and Needham 2007). People cannot be expected to fend for themselves like that.

In a conceptual essay invited by the African Water Issues Research Unit (Warner, 2000) I maintained that integrated water management requires an integrated society. In the current context I would maintain that an integrated water security also requires an integrated society. A fragmented society in which certain groups are excluded cannot easily reach coherent flood risk management.[448] Selective protection means the violent closure of the sphere of security and may bring us back to the 'pre-providential states' when elites instated containment zones to protect

themselves or their clients and ward off sources of hazard (pestilence, pollution, deviance) meaning the abandonment of others exposed to hazard (Ophir, 2007). When this separation is no more functional and hazards affect the chosen few, environmental protective measures are taken.

9.8   DID FLOOD EVENTS OPEN A WINDOW OF OPPORTUNITY FOR GOVERNANCE REGIME CHANGES?

As introduced in Chapter 1.2.3, the so-called Punctuated Equilibrium approach predicts Focusing Events to break through established regime patterns. That approach is inspired by ecology, which teaches that ecosystems go through four phases of pioneering, colonization, climax and decay (De Groot, 2000). The last stage is marked by creative destruction. A favourite paleontological example is the creative destruction of a meteorite *wiping out the dinosaurs.*

Punctuated equilibrium theory suggests, flood events or projects can change the policy context. Did the floods wipe out the dinosaurs or did they adapt? In each of the ´hydro security regimes´ under review, a national 'hydro-hegemon' could be identified. Rijkswaterstaat (RWS) in the Netherlands, the Bangladesh Water Development Board in Bangladesh, the Ministry of Agriculture (now DEFRA) in Britain, DSI in Turkey, Presidency and army in Egypt. These leading agencies in their own way were in the process of downsizing and under pressure to redefine their roles as the project was mooted, giving other actors a possible look-in. How did the flood and conflict over projects affect the regime? Did they affect the role of the hegemon and the rules of the game, as Lowry (1998) maintains?

While an overall impact assessment is not possible on the basis of the data, I will make preliminary inferences below with regard to openness and closure of the regime in terms of actors, roles/procedures and knowledge.

An emblematic event such as a declared *flood crisis* can indeed proved a short-lived window of opportunity for the river manager to have projects plans and policies fast-tracked and hegemonic position of the self-appointed national 'water defence force' strengthened. Such an event can generate the consensus that enables a cooperative regime to address common problems. Floods on the Rhine and Maas and elsewhere precipitated closer European co-operation on floods and the adoption of the European High Water Directive (European Parliament and Council, 2007). This however did not hold for Bangladesh, India and Nepal, a hydro-security system linked by three rivers and multiple disputes over borders and migration. On the Nile and Euphrates-Tigris basins, two cases of nearly averted war in 1998 may have improved relations between the riparians, allowing non-hegemons to make demands. But the more meaningful change may well be the influence of non-state actors on donors, including the international interaction of experts filtering down 'desecuritised' thinking.

At the domestic level, Bangladesh's President Ershad's flood security activism after the 1988 flood did not silence his political opponents, who managed to have him deposed in 1990. The Toshka project enabled by the 'good flood' in Egypt brought parliamentary questions and even a *fatwa*, but mainly appears to generate indifference at home and abroad. Local government had been weak ever since Bangladesh became independent, but got a new lease on life as FAP progressed, such that the role of local government service, LGED, role in water management increased dramatically. Public participation became enshrined in several national guidelines.

In the Netherlands, 'calling a crisis' after 1993 and especially 1995 enabled Rijkswaterstaat and *waterschappen* to take the reins – the evacuation plan for 200,000 on the Rhine, a Delta plan for the Great Rivers – despite the dubious evidence for such a 'crisis'. Nationally, authorities, experts and locals appear to have worked in concerto enable the quick construction of emergency dikes in Limburg until 1997. On the Maas, the (national) Public Works Department was seen as taking over of the Grensmaas project and faced resistance from the provincial political parties, with a

telling standoff between provincial and national government in 1999 over a trial trench. The environmentalists dropped out when austerity measures impelled stepping up the economically more interesting aggregate excavation at the cost of environmental amenities.

The flood may also have precipitated the acceptance of an already initiated move from vertical to horizontal flood response, necessitating Rijkswaterstaat to take a different, more modest role in a 'polder governance' model of negotiation. This provided inroads for non-state and foreign agencies. On the Rhine, for example, regional actors accepted the initiative to take the lead in Making Space for the River, while the province of Gelderland's initiative, with the neighbouring German *Land* as partner, contested the 18,000 m³/sec scenario as hegemonic wisdom.

On the Rhine, the plan for controlled flooding had been hoped to boost the profile of the Water Vice-Minister and her Public Works Department, but was defeated in part by the department's own handling of the plan. Since then, ministerial restructuring and water policy decentralisation has continued.

The Province of Limburg was the lead actor in the Grensmaas project. Post-flooding defence efforts first boosted the role of the *waterschappen* and the province, and co-opted both private-sector companies and major environmental NGO in the Maaswerken consortium in 1997. Yet when the traditional security provider, Rijkswaterstaat, reassumed their lead role by taking the reins in the Maaswerken project, it refused contributing a 'security premium'. The province of Limburg challenged the definition of security maintained by the public works department, but lost. In 2001 when the project itself reached crisis point, Limburg regained the initiative and normalised consortium and stakeholder relations.

In Britain, the Maidenhead project was started by what was to become the Environment Agency, which launched its project proposal without a legitimising flood crisis. The Agency started from a weak position because of externally imposed change within the regime; NRA's transmogrification into the Environment Agency, and the privatisation of the water supply branch of Thames, weakened rather than strengthened its role in the policy arena. The Agency sought to strengthen its position as a lead actor in flood policy and change the system of cost-benefit calculation. The analysis argues that a strategy predicated on environmental values was part and parcel of an ultimately fairly unsuccessful niche strategy to change the regime. Environmental and culture al heritage NGOs act as statutory consultees, but with limited interest in flood schemes. The EA challenged established regime rules, seeking to extend the accepted calculation of benefits in the cost-benefit analysis beyond lives and assets protected to include environmental and health damage forgone. In both cases, the challenger lost, and so far, nothing appears to have changed fundamentally (Huber, 2004, Scrase and Sheate, 2005). Two years after a flood, the Maidenhead flood alleviation scheme face a public enquiry.

Yet, after repeated floods, the issue is now definitely on the agenda, making the EA's drive for more integrated flood management plans a policy reality. The agency's mandate grew after the police abandoned its flood warning service, and after the insurance association threatened to withdraw cover after two costly floods if government did not pull its weight. The state appears to be taking a larger role., but EA's role in flood policy remains clearly subordinated to that of the Ministry of Agriculture, as reiterated in flood policy documents (Ingen-Housz 2007).

The above are all pressures for change from within the policy regime. Was the regime challenged from the outside?[449]

A window of opportunity for the opposition in Bangladesh was the gradual recognition within the technical community that the major rivers in this country cannot realistically be tamed dramatically. This realisation switched the focus of FAP discourse from saving the country from floods to integrated water resource management to meet multiple demands. Rather than relying on local knowledge (Jansen, 1998), opponents co-opted expert knowledge. This was possible as experts were not a united community.

Similarly the Ooij platform, seeking to change the securitised mode and challenged the assumption, enlisted a retired Delft professor and was supported by dissenters in the epistemic community who did not necessarily share their scepticism of the 18,000 m³/s discharge scenarios, but were keen to discuss uncertainties.

To get a hearing, protestors in each case did not rely on their local knowledge only but enlisted water professionals and local and district authorities, while in Bangladesh and Turkey, they benefited from the political skills of international NGOs. As the opposition reaped success, the ruling security coalition offered NGOs a place within the decision-making regime, which protesters then can accept or reject. Controversies over river infrastructure thus opened a window for opposition actors to become part of the governance regime.

In a political culture dominated by the politics of mutual delegitimation, Bangladesh, NGOs and engineers started out at loggerheads. NGO opponents of FAP(-20) had a tough battle on their hands to prove their mettle as flood management actors. As a result of their successful engagement, Bangladeshi NGOs found a mode of coexistence after the controversy over the Flood Action Plan (in which FAP-20 was a flashpoint that gave NGOs a look-in in the river management regime.

In Britain, Flood Risk Action Groups were established after the 2003 flood to involve citizens and local authorities more in flood preparedness. In the Netherlands, the BOM (Bewoners Overleg Maaswerken) and HWP (Hoogwaterplatform) gained inroads in the decision-making regime structure by joining regular talks with the Maaswerken project organization and Gelderland respectively (*Waalweelde* project).

While NGOs were co-opted, not everyone agreed to be drawn into the regime. The anti-gravelling federation (*Federatief Verband tegen Ontgrondingen*) on the Maas, for example, took a 'non-participatory' (non-co-opted, from the perspective of the activists) stance. The role of an 'outsider' ensures the group not to compromise their principles, and legitimacy to continue to file administrative lawsuits and target the regional press.

Hegemonic Control?

In terms of Hilhorst's (2003) domains of knowledge and action, some opportunities have been created for better co-ordination between decision-makers, experts and local stakeholders. NGOs and local authorities thus found their way into the decision-making regime, widening the range of actors with the potential of improving feedback between state and society. However, it was noted the regime does not alter a structural selectivity in protection between actors and does not account structurally for the security of project affected people. Taking a critical regime perspective we can analyse what makes everything remain largely the same in terms of security control, despite obvious conflicts.

We have seen that in Turkey and Egypt, the hegemonic actor is faced with the challenge how to maintain hegemonic control (*régie*) of political decision-making. Moving from one-party to multi-party rule without losing control of people. In a flood context, flood scheme initiators appear to have hoped they found ways of widening the *range of actors* in security provision and deliberation without needlessly endangering their control of the river. Project initiators in Bangladesh, Britain and the Netherlands must have believed the flood defence case was cut and dried, as they were invariably taken aback by the furore over the projects they started. They had assumed that the flood risk itself, expected benefits and a form of public consultation would be enough to legitimise the project. Protest thus brought defensive and placating responses. While a (semi)-caged river still instils fear, so apparently do non-state actors inspire fear in state agencies. Therefore, it is not only structurally securitised political environments in the Middle East that find it hard to communicate with local flood- and project-affected people about their security concerns, but also liberal democracies in Europe.

The present study yields that river management largely remains in the hands of technical experts, outside the political sphere. As Aradau (2001) notes, an increasingly practiced way for

governments is to treat risk and calamity management not like a war but like a normal, routine situation we can handle rationally. This 'managerialisation' treats risk like a technical problem, without great uncertainties. A 'risk' approach implies control and predictability enabling a rational calculation of means and ends (Fox, 1999). Popular participation then is required to incentivise stakeholders such that they do not increase risk (Aradau, 2001)[450]. Floyd (2007) therefore rightly dismisses Buzan *et al.*'s (1998) claim that desecuritisation leads to politicization. Unease with more unobtrusive 'desecuritised' social controls as risk maps and risk profiling is rarely giving rise to political protest. This, critical security scholars argue, gives the security establishment relatively free range.

If this reasoning is correct, a *transformation* of the political arena and emancipation of actors under desecuritised river management would seem to be wishful thinking.

9.9 CONCLUSION: HOW DOES THE THEORY ILLUMINATE EMPIRICAL FINDINGS?

The analysis shows that a window of opportunity for securitisation never lasts very long in practice: no matter how structurally securitised the context. The window for securitisarion proves to be an undependable instrument of 'closure'. The window of opportunity for swift action closes and river schemes will eventually encounter either a serious challenge (polarisation and politicisation) or have to contend with the slow motion of 'routinised', everyday decision-making. Even in a political economy that routinely spends its way out of crises by investing in infrastructure, or in a permanently securitised context, initiators cannot count on unlimited budgets, legitimacy and compliance. All studied flood-related projects saw resistance and dramatic protest (rallies, parliamentary questions, high-profile lawsuits, walk-outs) suggesting local citizens felt their ´feelings, needs and interests´ had been ill-served. Securitisation and desecuritisation have multiple audiences: experts and non-experts, decision-makers and decision-affected people. While we might concentrate on local stakeholders, flood managers, donors and experts are crucial to the successful completion or rejection of a flood defence scheme. The 'natural risk' of a flood and its distribution effects, cannot be judged in isolation from the technical and administrative/governmental setup, which bring their own risks parsed as threats or, as we have seen, opportunities.

While securitisation brought non-compliance and resistance, desecuritisation does not mean ´living with the river´ is universally appreciated. It was noted in Ch. 5 (Bangladesh) that a pendulum swing can be observed between *risk-acceptance and risk-aversion,* which drive *'wet' and 'dry' phases*. Yet it was found above that aspects of water securitisation and desecuritisation, as it were 'conflict and cooperation with the river', can influence each other or even happen *at the same time* (see also Brouma, 2003, Davidsen, 2006, Mirumachi, pers. comm..). The above has thus described a practical dialectics between securitisation and desecuritisation with respect to floods, a standoff between the special and normal politics. 'War with water´ and ´peace with water´ neatly echo the ´water war´ and ´water peace´ narratives pictured in Chapter 4. A 'water as politics' (political ecology) view of disasters challenging the two takes similar view of the world as the hydro-hegemonic view of ´water wars´. This perspective, among other things, highlights that projects and protest can be symbolic: just like securitisation may be about something else than the professed threat, controversy over a flood project, then, is likely to be a focus for controversies about something else (territorial control, identity, historic grievances etc.). To key actors, the Focusing Events may well be moments in a larger story of security and control, and opposition against its manifestations. The next and final Chapter goes into this, and draws conclusions from the above findings for the body of constructivist security theory.

Chapter 10: The securitisation of flood events: implications for security analysis

'The argument is not about the reality of (…) dangers, but about how they are politicized (…) Starvation, blight and famine are perennial threats. It is a bad joke to take this analysis as hinting that the dangers are imaginary' (Douglas, 1994: 29).

'Emergencies demand rapid action… Presidents and prime ministers have to take action first and submit to questions later. But too much prerogative can be bad for democracy itself' (Ignatieff, 2004: 2).

'When there's a man overboard, you are not going to worry if it's a federal responsibility or a state responsibility' (New Orleans flood victim in *When the levees broke*, part 3, Dir.: Spike Lee)

10.1   INTRODUCTION

The preceding chapter by and large applied the conceptual framework of constructivist security studies, as developed by the 'Copenhagen School', to six empirical river management studies. The study set out to investigate the *roles 'security' and 'risk' discourse plays in (de)legitimising flood management projects, and how this affects the political and river management regime context*. It confirmed Buzan *et al.*'s prediction that environmental securitisation is rarely successful, except when the threat resonates with earlier threats. While security speech can change the arena it did not found much evidence for 'punctuating the equilibrium': regimes remained in place, new directions and actors in river governance manifesting themselves before the crisis returned when the crisis window closed. However, the outcomes of the present study suggest that certain modifications and elaboration of the Copenhagen approach may be in order.

The present chapter will raise five issues:

- We should not only attention to threats but also to the opportunity side of crises (10.2)
- Research on security speech and practices should not only focus on elites, but also on societal actors (10.3)
- Security speech and protest has a tendency to 'hijack' audience, which gives a false sense of consensus (10.4).
- Neither securitisation nor politicisation is 'the problem' (10.5) and
- An integrated security approach may offer possibilities to impose conditions and accountability on security action (10.6).

10.2   INSTRUMENTALITY OF SECURITY SPEECH: CRISIS AS OPPORTUNITY

In 'The rise and fall of the Soviet threat', Alan Wolfe (1979) shows how the construction of such Cold War threats as the Missile Gap and other icons of the 'Red Scare' depended on domestic American political expediency. The analysis suggests that political and military elements benefited from the occasional dramatic representation of a threat, independent of its actual manifestation. In terms of the present research, the fear of Soviet power generated a *demand* for security in the United States that was met by a government willing to supply. Like any sensible supplier, they advertised (marketed) their wares by playing on the intended audience's needs and promises of effectively meeting them.

Demand for security in the face of hydrological hazard likewise appears to have a political seasonality on response to supply and demand. The awareness of risk and demand to be protected from harm is ever on the rise (Douglas and Wildavsky, 1983). While extreme floods are becoming more of a challenge due to a growing number of people settled in at-risk areas but demand for structural measures is also whipped up by climate change scenarios predicting intense floods and droughts. Whether in the case of the missiles or climate change, a degree of uncertainty about the future facilitates the invocation of vital threats.

The political response to risk is not always the search for a Teflon coating and/or diplomatic immunity (Hood, 2002, see also Leiss and Chociolko, 1994), but a willing supply side. Security provision can also be a livelihood or a political career In its most opportunistic sense, as Naomi Klein asserts, hazards are a business opportunity (Klein, 2007). But whether driven by greed, a concern for the safety of others or a sense of professional responsibility, the point remains that security services, civil engineers, insurers, mayors and humanitarian aid agencies are only too happy to promise prevention, protection and rehabilitation. As some will happily admit, they 'need' the occasional flood to keep up awareness and pressure on decision-makers.

A crisis is thus a contradictory animal, as shown most clearly in the Chinese character for 'crisis', which is a composite of two characters, 'threat' and 'opportunity' (see below). A crisis represents danger, but it can also be a lucky break for some. Not only do floods bring fertilisation, ecological restoration or social capital, they bring a window of political opportunity–both for incumbents and challengers - to assert their legitimacy as providers of protection services.
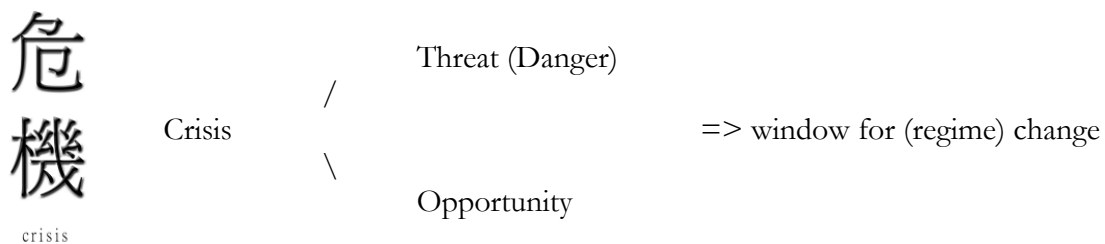
危
機
crisis

Crisis

Threat (Danger)

/

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Opportunity

=> window for (regime) change

FIG. 10.1   *Chinese character for 'crisis' shows the two faces of crisis*

For state actors, security can be instrumental in attaining ulterior goals – legitimacy, compliance, control over freedoms, resources, political standing within the bureaucracy. Huysmans (1998) even sees securitisation as

> ... a technique of government which retrieves the ordering force of the fear of violent death by a mythical replay of the variations of the Hobbesian state of nature. It manufactures a sudden rupture in the routinized, everyday life by fabricating an existential threat which provokes experiences of the real possibility of violent death (Huysmans, 1992, quoted in Aradau, 2001).

Yet, the case studies have indicated security is not just the business of security professionals at central level. Regional and local authorities, experts, NGOs and community-based organisations take initiatives to protect their communities against floods, or as the case may be, against flood defence projects and policies. Decision-making theory suggests a linear process of agenda setting for solving a problem (Easton, 1965). But decision-makers and experts are not normally confronted by well-defined environmental problems; they frame them out of the complex mass of problem and solution elements, in so doing naming (attributing) culprits and remedies. The emerging dominant problem frame delimits the solution alternatives considered or excluded. Sometimes the problem itself is redefined (reframed) several times over until it gets 'solved' or otherwise disappears from the agenda.

A flood can be a window to promote existing security ´solutions´, river plans that were already lying in waiting[451]. Securitisation and desecuritisation influence and reinforce each other through spatial and temporal linkages. The two appear to feed on each other, not just conceptually (Behnke, 2005) but also in the practice of flood governance.

Examples in the case studies abound. The need to divert overflow in Lake Nasser into the desert provided a window for Toshka. Compartmentalisation was already on the agenda when major floods ravaged Bangladesh in two consecutive years. A high-water event saved the province of Limburg's Grensmaas plan for river restoration. All researched flood schemes are more than just security infrastructure. Rather than quick technological fixes, they introduced more subtle ways of dealing with floodwater drainage (compartmentalization, green river engineering) as well as extending the mandate by putting in measures to facilitate shipping (Maas), nature development and aquatic recreation (Maas, Thames), a vision for regional development (Turkey) or create a whole new civilisation (Toshka). The threat of security allowed other, developmental, transformational policy preferences to play hopscotch on the back of security: they were 'security-plus' projects.

10.3   CAN THE SUBALTERN 'DO SECURITY'?

Are political or academic 'authorities' the only actors who can do this trick? Buzan *et al.* (1998) state that securitisation has to come from a position of 'authority' – politicians, NGOs, experts, media. This disadvantages those who cannot speak, for example illegal aliens (Hansen, 2000 q. in Diez, 2000). This view however is contested: Litfin (1997), Aradau (2004) and others claim everyone can 'do security', even from an 'abject position', the security-have-nots outside the national can re-appropriate it for other purposes, for doing what they ´freely choose to do' (security as emancipation) (Aradau, 2004).

First, local actors mostly quietly look after their own security with or without projects, as they bear the brunt of hazards anyway (Kirschenbaum, 2004). Second, they can make intervening security actors lives difficult. Project implementation brings an interface (Long, 2001) between engineers and local citizens in which the latter may express a refusal to play and gave rise to protests and active resistance from outside the elite. Vocal protests against project implementation in Tangail, Hasankeyf, Ubbergen and Taplow were such an embarrassment to project initiators that, given external support, they could not so easily be repressed.

Second, they can 'countersecuritise', that is, promote a security counter-frame that protects a non-negotiable value, legitimises extraordinary forms of protest and protection. For this they can enlist more powerful actors, joining an existing discourse coalition or simply find themselves on the same side as others siding against the project. In the current study we saw the unlikeliest of bedfellows seeking to stop a project - Friends of the Earth, Trinity College, the World Bank and the state of Iraq all opposing the Turkish Ilısu Dam, anti-gravelling groups in Limburg siding with gravel companies from across the border and the European Union against the Maaswerken consortium.

This indicates that the support of certain 'members of the audience' is crucial to the success or defeat of security speech. The research project has identified crucial groups in that audience, as explained in more detail in the following Section.

10.4   SELLING THE SECURITY STORY

10.4.1 ALIGNING DISPERSED AUDIENCES

Discourse is co-production: nobody can control discourse alone. A successful security discourse coalition, whether for or against a project, depends on the *context* and the *audience*. It takes a receptive audience to validate and ´instantiate´ a securitising move. It was found that even in a authoritarian political system, the audience reaches far wider than the immediate *junta* membership. In each of the case studies the audience consisted of a mostly international network of disparate, occasionally overlapping groups that were not usually well-coordinated among themselves. As will be argued below, the audience can be 'hijacked' and taken for granted, but also has knowledge and agency. The present research identified (after Hilhorst, 2003) three core audiences who need to be aligned to counter a security challenge, and thus need to respond to the labelling of a situation as 'insecure' and in need of extra-ordinary measures: other decision-makers, notably

- governance sector   (decision-makers, funders, bureaucrats
- security experts   (scientists and managers)
- local response   (the flood- and project-affected population).

Governance   Other actors in the risk governance sector also need to co-operate. Regional authorities need to give planning permission. Supranational directives contain norms that force accountability. Funding proved a particular Achilles hill for river management projects. Security discourse may well successfully command a ´blank cheque´ for security measures in the regional or national arena, but requires others (donors) to stand surety for continued funding. As these operate in non-securitised contexts (or choose to invoke non-security norms), as they did in all my case studies except Egypt, they bring conditionalities that impair the sustainability of security measures.

Experts   Security logic has customarily extended to the scientific community, where uncertainty only complicates the narrative and therefore is reasoned away into 'safety margins' (*waakhoogte*), 'failure factors'. Securitisation does not allow ambiguity or uncertainty. In flood management, scientific uncertainty is 'tamed' by imposing safety margins, using stochastic tables based on historic flood data and extrapolation. But in each case, critics in the scientific community could be co-opted by protesters, willing to challenge the assumptions of rivers schemes. While in the case of Bangladesh, academics championed local knowledge, opponents more frequently mobilised technical counter-expertise challenging river experts on their own terrain.

Local response   Finally, a project intervenes in local lives. A project promises to protect local stakeholders, catering to a demand for security. If they had a traumatic flood or evacuation experience, they may well be willing to sacrifice a lot to ensure safety in the next event. In the Maaskaden episode, there were direct informal feedback mechanisms between project planners, implementers and affected population. In the other case studies however such intensive co-ordination has been very rare. The project-affected population is not coterminous with the intended beneficiaries. They tend to be background as an audience. So, where are they in the story? Are they (seen as) participants or silent witnesses?

Below, I will return to Slocum and van Langenhove's (Constructivist) positioning approach and van Eeten's policy stories to see how different actors position not only themselves but also others (and the flood) in the arena.

10.4.2 POSITIONING, BLAMING AND HIJACKING THE FLOOD SECURITY ARENA

A great measure of policy uncertainty permits jumps (leaps of faith) in the security story, to make linear attributions that construct a neat security claim. These claims enable ´conflict entrepreneurs' (Friis 2000) to bring together coalitions around a narrative that help forge an audience for a successful security speech act. By transforming the policy issue into a security arena with threat-defence sequence, this creates certainty and an action perspective. As a consequence, fence-sitters ('liminars') by their very existence are a threat to things, and are forced to become either 'us' or 'them'.

What kind of story does a securitising agent tell the audience? Flood securitisation is a story of a threat (the river) affecting a referent (lives and assets) and a remedy (infrastructure, zoning etc.). The hero slays the dragon threatening the princess and as a thank-you gets to marry her.

The successful securitisation of the river however introduces another actor: it is also a direct (or indirect, Ohana, 2007) way of condemning Others. It is to discredit the opposition to security policy as the 'dragon's helper' – environmentalists, the deviance of greedy developers, lax local authorities, upstream interventions, climate change-inducing industries, whose behaviour presumably causes the danger to core values. 'Dissidents can be silenced most effectively when they are portrayed as aiding the enemy' (Dalby, 2000: 13). A contested security project in turn presents its opponents with an opportunity to position themselves as alternative heroes in the tale, with the project initiator as 'dragon's helper' (or 'lion unleasher') The present study not only found such stories for the Netherlands (after van Eeten, 1997) but also Bangladesh, Turkey and Britain. The initial antagonism of the 'blue' and 'green' coalitions, 'engineers' and 'sociologists', 'intruders' and 'rebels' concerned a clash of two mirroring security stories delegitimising the opponent's values and narrative. The conflicting protagonists have reduced uncertainty by 'filling out the blanks' with a security story that creates certainty about, or unimportance, of the facts of the matter - and by not communicating with each other.

How about the ´princess´, supposed to be protected? Labelling a group or the environment as threatened reconstructs the identity of this group as vulnerable victims. It was noted in Chapter 8 that local actors rarely feature in participatory designs for security schemes. It is not usual to interact with flood-prone citizens to learn if and how they would like to be protected. We found water departments find it very hard to consult rather than sell. Citizens are now included in some operational security activities such as neighbourhood or dike watch but are largely absent from hazard management arrangements which at best remain at the inter-institutional, corporatist level.

States, but also NGOs have a tendency to present groups as vulnerable without consulting them on this (Allan, 2002). Bangladeshi NGOs have patron-client relations with the local poor, and in turn enjoy patronage from international donors. This makes it hard to assess the spontaneity of protests against projects. In Europe initiators and NGOs defended environmental values that were not uniformly shared by local citizens, so that their 'green' moves were not felicitous with the local audience. There may be a very real cry for help (real demand for security), a voluntary offer to be another actor's protégé, but if this is assumed rather than expressed, there is question of instrumentalisation ('hijacking') of intended beneficiaries. Like fairytales, we thus find neither the security nor the countersecurity coalitions are necessarily *democratic*. Positioning oneself as protector attributes agency to the (originator of the) threat, and passivity to the at-risk protégé, even if this passivity is not necessarily warranted.

Invoking history and the politics of unease

A positioning approach allows us to account for *change*. Due to interaction and learning, the former antagonists locked in defence dilemmas are now co-operating in consultative bodies, so that the neglected 'princess' now has a voice. Yet, other cases show that learning can also mean learning to reproduce, intensify and develop variations of essentially the same conflict story –

with the flood or flood plans as recurring threats. This points us at the importance of a time element.

Buzan *et al.* (1998: 29) expected *environmental* security speech to be mostly non-felicitous – at most, it results in politicization. The authors however concede that resonance with historic threats can make all the difference. In the Netherlands, the securitization of a high-water event that many do not consider a crisis proper triggered crisis legislation if the threat resonates with earlier traumatic events the (´saying dikes´), while in Britain, which does not have this historic resonance, floods that killed five residents in Middle England in 1998 did not.

Now that the Dutch are contemplating a risk (adaptivity) rather than a hazard (dikes) approach, proponents of 'dikes' frequently invoke a new threat: climate change. After Bigo (1998) this can be seen as essentially the same narrative. Rather than concentrating on unique (repeated) speech events, Bigo argues we should look for connections that weave them into a more coherent security narrative. He notices a 'politics of unease', in which all manner and threat (migration, terrorism) are collated to 'sell' technologies of surveillance and identification as the remedy (governmentality). The ´politics of unease´ thus legitimise all kinds of security measures that bring increased control of individual behaviour.

Conceivably, though to my knowledge not contemplated by Bigo, counter-securitising coalitions may well be doing the same thing in their counter-hegemonic strategy. Action-oriented NGOs find (or declare) 'crises' to operate their social or environmental advocacy role. NGOs have broader agendas for social change or environmental conservation, and are constantly on the look-out for any 'mistakes', that create opportunities to delegitimise an adversary and make donors feel uneasy. This, it appears, is easy to do: mega-projects rarely are totally successful and often display glaring weak spots - environmental costs, resettlement, financial irregularities – which would easily be forgiven immediately after an actual crisis context, but not when that context is lacking. Successful protest against large infrastructural water projects in 1990 made international donors nervous – they could not afford to make mistakes.

Incidental conflicts over dikes and zones resonate with other conflict legacies .- historic (often centre vs. periphery) grievances and underlying conflicts. Protest against controlled flooding in the Ooij built on earlier mobilisation against dike reinforcement, Limburg protesters were steeped in protest against gravelling. At the international level, protest against FAP-20, Ilısu and resonated earlier successes of locally focused international INGO protest (International Rivers Network, Friends of the Earth) against infrastructural works, such as Narmada, Arun and Pergau. This 'jet stream' may well have provided a window for the countersecuritisation, and hence politicisation, of the flood protection schemes in Bangladesh and Turkey The careful selection of multiple venues in the political system (forum shopping) enabled the anti-Ilısu and anti FAP coalitions to find an international hearing for their protests, breaking through the established local 'equilibrium'. Whether within or above the law, they opened the floor to contest the initiator's project frames – as bringing war not peace, destruction not development - that not only delays or halts a project but promotes other agendas.

The strategies used by national NGOs and local platforms in Europe and Asia Tangail and the Ooij polder (lawsuits, dramatic public protests, parliamentary lobbying) were successful in stopping a policy or its follow-up. All projects were seriously compromised or discredited by the opposition. Moreover, as noted some NGOs and CBOs gained a place at the table in the regime and influencing donor or hegemonic conditionalities imposed on river management schemes. This allowed some actors to have it both ways: to fight the project, but also benefit from it, both in terms of physical protection and of enhanced status resulting from protesting and negotiating enhancements.

While un-securitisation (disarming securitising moves) and desecuritisation (undoing previously successful securitisations) strategies were mounted to take power away from an actor framed as enemy, to delay crucial decisions to prevent action, to take power away from an (institutional) actor, with a view <u>not</u> to getting certain things done. Alternatives were proposed, but none of the

options for protection worked out by consultants and retired civil engineers were actually tested and adopted. Calling off the project has not eliminated the risk for the flood-prone regions, and has not introduced an alternative technological frame.[452] Since the flood risk is not 'solved', 'solutions' can be resuscitated. Indeed, the modality for riverine flood management may have become controversial everywhere, all proposed technologies have reappeared in some form. Conflicts, therefore, can be expected to revived, too.

With some irony, the above argument can be summarised as the ten-step Table 10.1 below:

TABLE 10.1 Securitisation and countersecuritisation in ten easy steps

How to securitise in ten easy steps	How to countersecuritise in ten easy steps
1. Select an issue that is sufficiently complex and uncertain	1. Select an issue that is sufficiently complex and uncertain
2. Identify or invent a crisis (injustice) to be overcome	2. Identify or invent a crisis (injustice) to be overcome
3. Present the particular view as the general interest	3. Present the particular view as the general interest
4. Attribute the problem to an 'other'	4. Attribute the problem to an 'other'
5. Present the issue as urgent and solvable	5. Present the issue as urgent and dangerous
6. Present yourself or a favoured actor as the hero of the story	6. Present yourself or a favoured actor as the hero of the story
7. Present yourself or a favoured actor as the victim of the story (e.g. in need of saving)	7. Present yourself or a favoured actor as the victim of the story
8. Mobilise the support of key audiences, including the help of a powerful donor	8. Mobilise the support of key audiences, including the help of a powerful donor
9. Turn word into action, if necessary placing yourself above the law	9. Turn word into action, if necessarily placing yourself above the law
10. If attention flags, bring in a new threat that warrants the same solution	10. If attention flags, bring in a new threat that warrants the same protest

10.5   STATE OVERBOARD?

We have seen that both taming the flood and making peace with the river has easily translated into 'war with stakeholders'. The terms of security provision made sense at systems level, but rarely at local level. This invites the question if the systems level, privileged by 'integrated water resource management' is necessarily the appropriate level. A critical perspective questions the state as key referent of security, arguing the individual or the planet should be privileged. State involvement may reduce but also create and promote risk and vulnerabilities for people and planet. Throwing the state overboard means relying on social solidarities and/or market forces.

It is legitimate to ask what total non-securitisation of flood risk would mean: a reliance on societal self-help. The effective flood warning and country boat system in Bangladesh shows that emergency can overcome social constraints to include a wide range of actors in flood preparedness and response. The frequent recurrence of floods obviously maintains flood awareness, which is not available in floods that take more than a generation to recur.

The vulnerability school in disaster studies echoes the concern of critical schools in society studies about individual or group security, but distrusts the state or private sector to provide this for different reasons. For both the 'Welsh school' in Aberystwyth (Booth, Wyn Jones, Linklater…) and the 'Paris School' (Huysmans, Bigo…), governance does not bring the security

co-production and alignment envisaged by 'water peace' narrative, but increased control (Table 10.2 below). Vulnerability analysts, meanwhile, have noted that social resilience to all kinds of hazards is underestimated, and promoted investing in local resilience and preparedness. Disasters are opportunities at local level too, as they enact social networks and resources (Hilhorst, 2003).

However, we have argued above that resistance to certain project does not mean local stakeholders do not make use of protection structures and have no demand for protection. 10,000 Tangaili women protested against FAP-20, but others requested physical protection and those outside the embankments found refuge there in the 1998 flood. The protest against schemes such as Narmada or Maaswerken is not normally oriented against the very idea of development or flood protection, but against its modality and distribution effects.

It is a fine line between control and self-governance: the former can be suffocating, the latter can become synonymous to abandonment, when no one looks out for Others any more in their hour of need. This invites a closer look at the challenge of countering disaster in the 'logic of peace' of networked governance arrangement – one may visualise a 'bazaar' of spontaneously organised social security interaction co-existing with the more customary 'cathedral' of top-down management (Lankford and Hepworth, 2006).

TABLE 10.2 Three approaches to security studies

School	Security is	Referent	Theoretical background	Regimes bring
American	Stability of expectations	State	Realism	Stability: strong hegemon
Copenhagen	Peace, Cooperation	State/ other	Liberal Constructivism with realist roots	Coordination: norms, values, procedures
Welsh/Paris (Critical security studies)	Emancipation	Individual	Radical (Political ecology)	Control mechanisms

A case for conditional securitisation

In responding to contingencies, perhaps you cannot always privilege 'choice' over 'necessity', ´deliberation´ over ´decision´. With our current state of knowledge, an earthquake cannot be deterred. The attraction of disaster securitisation, instead of the politics of neglect, is that it legitimises the human and capital investment in mechanisms to get things done, quick, on a large scale when the 'opponent' does not play by your rules. When a tsunami is coming in your direction, both the certainty and values are clear. With a house is on fire, you will be unlikely to deliberate over liability and compensation with your neighbours over collateral damage, but call the fire brigade. The collateral damage to others as a result of dousing the flames can be dealt with later. When someone is an immediate danger to themselves or to others, police and aid workers are allowed to intervene without consultation (outreach – in Dutch *bemoeizorg:* unrequited care).

To avoid being insecure at a crucial time, stakeholders are willing to abandon their sovereignty and delegate their political say to security suppliers. But legitimate intervention need not go completely unchecked. Liberal security analysts, including as the Copenhagen School, see the security mode is an undesirable that should at most be transitional. Is it possible to regulate the unregulated period of exception so that are rescuers and protectors are accountable for their actions?

The treatment of flood victims, as much as other people temporary ´placed outside society´, requires a discussion on protocols, on rescue ethics – a Geneva Convention for crisis response. In this we can take a cue from Michael Ignatieff (2004), the Canadian social commentator-turned

politician who insists the state of exception is the 'lesser evil' when your adversaries' actions are not as ethical as your own standards, and advocates putting security under democratic control and with a clear time delimitation – thus mixing wartime and peacetime modes of security governance.

In the projects under review, there turned out to be structural links between the securitised and non-securitised ´spheres´ that acted as brakes on the suspension of choice and accountability. External actors imposed environmental, financial, socio-economic and political rights and obligations on project initiators - though it merits mentioning that economic conditionalities not only helped but also hurt stakeholder groups. These links however have also proved levers for donors to pay more attention to local stakeholder interests. It will be argued below that the currently prominent 'integrated security chain' offers opportunities to institutionalise the links between securitised and non-securitised worlds.

Security chain and networked security governance
This is especially apposite the context of disaster *preparedness*, where the crisis is not imminent, so that there is time for deliberation as humanitarian crises bring immediate security needs. But water projects are not so much about disaster response as about disaster preparedness. The urgency involved in developing and instating flood protection schemes and policies, rarely warrants full securitization. The research noted that other (social and environmental) agendas were co-opted and adopted in these schemes, and different alternatives possible for which there was no urgent reason to overlook. Flood preparedness provides an opportunity to arrange this institutionally, to guarantee democratic accountability in the aftermath of the next crisis.

An integrated security chain management has the potential of mixing security and non-security modes of risk governance. In the integrated security chain, repression (disaster response) is the fourth phase out of five: *prevention, pro-action, preparation, repression* and *aftercare*. While the initial disaster repression phase is probably best tackled by actors with coercive powers, the other phases are not restricted by urgency. These desecuritised phases widen the range of actors and bring in diversity of likely candidates, whose roles and identities may differ between the stages. Moreover, the stages are likely to overlap and the different links in the chain to be associated with different actors.

A 'water peace' logic fights complexity with complexity but may also suffer from the problems of the water peace logic. First, one need to be aware of a functionalist assumption in the water community that 'good governance' can make actors work well with each other. Friesendorf (2007) notes that

> '(n)etworks are (..) needed *among* actors with a similar outlook and *between* actors with a different outlook.' (…) In addition to more *balanced* security governance, there is a need for better *networked* governance (Friesendorf, 2007, emphases in original).

Currie Alder (2007) however has warned that participatory resource management can be a foil for resource capture, if it ignores underlying power divergence. In the same vein, Warner, Hilhorst and Waalewijn (2002) qualify their recommendation for a multi-stakeholder approach to disaster preparedness by emphasising the need to understand why such platforms are promoted, and how the interests of less powerful groups are safeguarded. The functional co-ordination mechanisms in network governance can easily overlook the hegemony element and thus exclude important actor identities, needs, interests.

The research however also found that the vulnerable, whether in- or excluded from the regime, do not face a solid 'hegemonic bloc'. One cannot assume the governance system to be consistently cooperative, the epistemic community consensual and the community united. Opposition in one domain can resist the call for consensus co-opting/enrolling dissidents in another domain who can say things that local groups or politicians cannot. Thus we saw *alliances* between community-based platforms and dissenting experts or regional governments.

Such mechanisms however require a level of structural awareness and engagement more likely to be raised in a conflict situation. In 'peacetime', local actors are rarely well-organised and the tendency for all actors not to spend time on the first three phases before the event happens. This privileges the professional state and NGO actors indicated above at the table – until someone re-securitises the issue.

10.6 SECURITY MODES: A TYPOLOGY

Finally, it is possible to re-systematise the three-mode approach to security decision-making (Table 10.3 after Buzan *et al* 1998: 28)

TABLE 10.3 Three modes in which policy problems are treated (after Buzan et al. 1998).

Mode	Security perspective	Politicised?	Securitised?	Legitimacy	Instruments
Security	Emergency	depoliticisation	securitisation	Mandate for fast-tracking	martial law, special laws
Politics	Contestation	politicisation	desecuritisation	To be won contested	public debate, Supreme Court Action
Normal	non-urgent	depoliticisation	'undersecuritisation'	Evident non-contested (Forsyth, 2003)	competition self-regulation

TABLE 10.4 Types of (security) policy problems (after Hisschemöller and Hoppe, 1996). Given their constructed nature, the agreement on values and facts cannot be taken for granted. The cells indicate which analytical approach focuses most on each cell.

	High value convergence Depoliticisation	Low value convergence (Re)politicisation
High urgency Low uncertainty	*Securitised decision-making (emergency)* *HOBBESIANS* Closure (by speech act)	*Politicisation* *MOUFFEIANS* Open conflict, internalising antagonisms (by power of argument)
Low urgency High uncertainty	*Managerial approach* *FOUCAULTIANS* Routinisation (backgrounding the risk based on technical rationality) Technical control	*Joint learning* *HABERMASIANS* Dialogue/Deliberative democracy (by power of the *better* argument) Mix of 'fighting' and 'learning' – no alternative for politics

Different strands in security studies have highlighted different alternatives to securitisation; (Mouffeian politicisation, Foucaultian managerialisation and Habermasian social learning) but to my surprise, these strands have not been brought together into a single framework. The research and its analysis permits me to expand and recast the way security problems can be handled in the below diagram, linked to problem types identified by Table 10.3 below (explained in Chapter 8). Of course the value convergence and urgency remain constructed rather than certain and therefore contestable.

Such a table also enables us to trace the dynamics through time in different contexts. The case material on the six flood schemes shows all modalities to be in evidence, if with varying success. Context is of crucial import in the possible modalities of dealing with security policy problems. The securitised political context of the 'dry basins' investigated obviously makes it easier to foreclose contest, although politicisation and deliberation is not impossible. Strong structural donor and NGO links enabled 'amplification' of local protest. Countersecuritisation successfully compromised the projects and in places exacted reforms, but the managerial frame remained dominant, so that a meaningful dialogue never ensued.

10.7   CONCLUSION

Securitisers and countersecuritisers (politicisers) see opportunity in floods and conflicts over flood project to promote certain agendas. They use the same tricks of discursive persuasion and enrolling others for certain goals. Security speech action does not have to be from a position of authority, or even be about speech but promotes agendas that are otherwise less easily attained. As both initiators and opponents use the language of fear to convince key audiences, flood projects can be expected to lead to securitisation but also countersecuritisation, politicisation and conflict

Pictured in very broad strokes, securitisers will seek to avoid the political process to get things done and are annoyed when the window of opportunity finally closes, while non- and counter-securitisers will try to avoid securitisers getting certain things done. It is argued that rejecting or relativising security as a construction ignores express demand for protection in overwhelming disaster events, and politics expresses express concerns about the way this demand is met, so that both modalities should be taken seriously. Both securitisation and countersecuritisation/politicisation are facts of political life and both have their relative merits in relation to different types of policy problems.

While extraordinary powers accruing to state actors can easily have worrying consequences in terms of control and constraints to rights and freedoms, it was proposed not to throw Securitisation out with the liberal bath water. It was noted in the introductory chapter that in a constructivist view, states are not only seen to play power games but also to puzzle (Checkel 1999). In this puzzling process, not all state actors avoid blame, nor do they always they take credit without taking action, and their supply offer appears to be readily met by a demand. A disaster studies approach shows up the pluses of securitisation – swift action, a window for reconstruction breaking through entrenched contexts, but also the minuses.

While the choice between 'going with or without normal political rights' would appear to be easy, both may carry a high price for some actors. Integrated security chain brings a mix of traditional and non-traditional security actors in the different disaster domains, who will need to find a *modus (co-)operandi* in disaster pro-action, prevention and preparedness. The merits of conditional securitisation would need further exploration in future research.

End notes

Chapter 1

[1] Like the Realist conviction that states have always existed, this liberal narrative is not necessarily borne out by history. It appears an instance of another 'invented past'. Western European countries, including Britain have not been top-down but shared power with the middle class and a rich array of local rulers. Trottier (2004) points out that the state in Europe never exercised such a control over resources as it did in 'oriental despotisms'. Water only became a state concern in the 19th and 20th in most European countries (Blokland *et al.* 1999).

[2] One of the most well-known early authors on the Social Construction of Technology (SCOT), Langdon Winner (Winner 1980), has called attention to the viaducts by the American architect Moses as example of how technology can discriminate between, as private cars (owned by whites) could pass under them to go to beach while buses (blacks, dependent on public transport) could not. It is not proved that they were actually intended to have this segregating effect but it can easily (and has been) construed that way from a black-and-white 'logic of equivalence'.

[3] An emblematic (if not unproblematic) contrast is posed by two Chinese schools of river management: a closed ('Confucian') mode of flood regulation aimed at full control and discipline of the river coupled with social and self-discipline, while the Daoist teachings of Lao Tzu inspired an experimental approach in which the river is given more freedom to find its path :'living with the river' (Li *et al.* 2004).

[4] Meijerink (2005) reviews four different theories of stability and change: He argues that the theories on advocacy coalitions (Sabatier), punctuated equilibrium (Baumgartner), multiple streams/window of opportunity (Cyert and March; Kingdon) and epistemic communities (Haas 1992) are quite complementary in explaining policy change.

[5] Young, Oran (1994). As Jägerskog (2003) notes, this is a close cousin to Hajer's (1995) 'emblematic event' raising awareness on social vulnerability.

[6] Lees (2001) analyses how calling a 'water crisis' in Israel in the 1990s marginalised farmers and as a consequence, changed the hydraulic mission.

[7] Because a 'securitising move' (a move for closure) and 'a securitisation' are sometimes conflated, I will at times use the stylistic contamination of 'successful securitisation'.

[8] Legitimacy combines the idea that there should be a difference between dominant and subordinate actors with an imputed common interest between the two (Beetham 1991: 72). This difference can be legitimised if the subaltern actor can be convinced that the more powerful actor's agenda represents the general interest Max Weber (1947) defined legitimate power as power that is *regarded* as legitimate - a constructivist viewpoint *avant la lettre*. For Weber, a power relationship is legitimate because it can be *justified* in terms of people's beliefs - there is congruence between power and beliefs, values and expectations that provide its justification.

[9] The Santiago School, supported by Stafford Beer and others, experimented with a socio-cybernetic system that would communicate feedbacks about people´s needs in under Salvador Allende's Chile. But the need for government to retain control can be an incentive to use the same complexity to assess risk and deviance.

[10] Frustratingly Laclau and Mouffe (1993) did not provide a complete methodology either. Lindahl and Sundset (2003) usefully developed the generative concepts proposed by Laclau and Mouffe and linked them with the work of the Copenhagen School in their research on the securitisation of HIV-AIDS. Davidsen (2006) has similarly applied this framework to the water sector in his discursive analysis of South African hydropolitics.

[11] A grand narrative or meta-narratives is a narrative about narrative that brings a comprehensive explanation of a historical experience or knowledge. A grand narrative is a "global and totalising schema which orders and explains knowledge and experiences" (Stephens, 1998).

[12] In the tradition of Pierre Bourdieu's concepts of 'field' and 'habitus', Unlike the natural world, human behaviour, is not simply the effect of external forces acting upon it; human beings actively and purposefully act on in response to their environment. The 'security field' to Bigo is a logic integrating heterogeneous practices into a specific concrete manifestation of the rules defining security practices (or

'formation'). Society organizes risks by providing an institutional environment which plays a central role in the production and regulation of particular risks.

[13] According to Mason *et al.* (citing Knoepfel) the 'degree of participation of different actors group in the policy or project formulation, implementation and evaluation directly affects the acceptability and implementation of (...) national and international policies'…[These are] 'determined by the openness or closure of national and international regimes with regard onto the demands of interest groups' (Mason, *et al.,* 2003: 9)

[14] Czarniawska for example (2001) contrasts how a local streetcar accident is reported in Swedish and Italian media respectively, contrasting Northern dry understatement with Southern European hyperbole and drama.

[15] There is considerable difference of opinion within the methodological literature about the proper terminology for the person who provided information used as research data: 'subject', 'respondent', 'informant' are in use. For the purposes of this thesis, the term 'informant' refers to anyone who has provided information outside the context of a formal interview. Those asked to be interviewed are referred to here as 'interviewees'. Interviewees have been recorded semi-verbatim.

[16] In one memorable instance however I had to wrap up an interesting but interminable interview (it lasted a good three hours) for sheer attrition - I noticed my own level of attention started to drop to unacceptable levels, combined with a developing pain in my right (writing) hand. This interviewee graciously accepted to continue the talk at a later date without apparent difficulty.

Chapter 2

[17] Extended, updated and enhanced version of Jeroen Warner, ´Nieuwe Ronde in Strijd om de Nijl´, *Vrede en Veiligheid*, 29 (1), March 2000.

[18] *Al Ahram*, 23 - 29 September 1999, Issue 448. http://weekly.ahram.org.eg/1999/448/focus.htm

[19] International Notes Health Assessment of the Population Affected by Flood Conditions -- Khartoum, Sudan http://www.cdc.gov/mmwr/preview/mmwrhtml/00001323.htm

[20] International Federation of Red Cross and Red Crescent Societies,
   www.ifrc.org/docs/appeals/rpts05/SD050810.pdf

[21] 'The traditional system of basin irrigation—in which Nile floods were trapped in shallow basins and a cool-season crop of wheat or barley was grown in soaked and silt-replenished soil—has been replaced since the mid-1800s by a system of perennial irrigation and the production of two or three crops a year, including cotton, sugarcane, and peanuts.'

[22] Abdallah Schleifer and Barbi Bursch (2005), *Before the flood, Al Ahram*, Issue No. 729, 10-16 February 2005, http://weekly.ahram.org.eg/2005/729/fe2.htm.

[23] Nevine el-Aref (2007), Sending out an SOS, *Al Ahram* Weekly no. 860, 30 August-5 September 2007, http://weekly.ahram.org.eg/2007/860/hr1.htm

[24] Yasmin Moll (2004), 'Paradise Lost', *Egypt Today*, May 2004,
http://www.egypttoday.com/article.aspx?ArticleID=1640

[25] The 'new' lakes in fact took 40 years to form, according to Egyptian hydrologist Sultan: 'UB Geologist Studies How to Manage Precious Water Amid Volatile Middle-East Politics', Buffalo University news release, retrieved 22 March 2006.

[26] http://www.esrs.wmich.edu/Tuska_lakes_poster.pdf

[27] http://www.eiu.edu/univpub/previous/12/page.html

[28] The analysis is based on a literature review. I have not had the opportunity to interview Egyptian officials or engineers about whether and how different alternatives were considered.

[29] Then Prime Minister Kamal el-Ghamzouri, cited in El-Ghamwary and Quinn 1999.

[30] 'In 1979 Egypt began to plan for the eastward extension of the Salaam Canal to carry 12.5 million cubic meters of Nile water annually to the Northern Sinai Agricultural Development Program. In January 1994 the excavation of the second phase of the Salaam Canal commenced to irrigate 400,000 acres of the Sinai from Suez to El Arish, near the Israeli border, to accommodate three million Egyptian settlers at a cost of $1.4 billion.' (Collins 2003).

[31] El-Khodary posted the EIA at http://www.cedar.at/unep/eia/docs/sinai.html see also Nabil M. El-Khadoury, 'Agricultural Projects and the Egyptian Bedouin',

www.geocities.com/CapitolHill/Senate/2908/bedouin.html

[32] Rachel Noeman, 'Egypt pours money into desert reclamation', Reuters, 17 December 2000, http://www.planetark.org/dailynewsstory.cfm?newsid=9340

[33] ArabDatANet.com, 'Agriculture', last update 2003.

[34] Stages two and three require more pumping stations and irrigation canals to channel to cultivate additional lands west of Lake Nasser, at a cost an additional $6 billion. This latter project apparently involves co-operation with Libya, and 1 million acres would be reclaimed and the desert urbanised. Susan Quinn, 'Egypt's Toshka Project presented to U.S.', *US Arab Tradeline*, 2 October 1998, www.awo.net/newspub/pubs/tradelin/981002b.asp'.

[35] http://na.unep.net/AfricaLakes/AtlasDownload/Toshka_Project.pdf 2005.

[36] Lexicorient 2006, accessed 18 February 2006, http://i-cias.com/e.o/toshka_l.htm

[37] Alan Cooperman (1997), 'Making the desert bloom--or making the wells go dry', *U.S. News & World Report*, 19 May 1997, 122 (19): 33.

[38] Miral Fahmy, 'Farming Toshka is no pipe dream for Saudi prince', *Middle East Times*, 5 December 1997. 35http://metimes.com/issue49/bus/1toshka/htm

[39] 'FAO goes down to Toshka', *Middle East Times*, 28, http://metimes.com/isue28/bus/3toshka.htm

[40] Quoted in Aaron Gladman (1997), "Massive Nile River Diversions Planned," *World Rivers Review*, 12 (3), June.

[41] http://www.metimes.com/articles/normal.php?StoryID=20051208-072233-4557r; http://weekly.ahram.org.eg/2005/772/eg8.htm.

[42] http://www.islamonline.net/English/News/2002-06/04/article83.shtml

[43] Pratt (2001) notices NGOs now escape control by registering as companies.

[44] http://www.hrdc.net/sahrdc/hrfeatures/HRF61.htm. The interpretation of the 'political' is interesting here. When a Member of Parliament asked whether raising funds for Palestine is a political activity, the government answered that as the whole Egyptian population is behind Palestine, it is not a political activity.

[45] 'No retreat, Toshka Project considered thoroughly, hi-tech implementation'. *Arabic news.com*, 20 December 1999.

[46] 'Mubarak: Toshka project among national priorities', *Arabic News*, Politics, 21 December 1999; ikhwanweb.info.

[47] in *al-Jumhurria* of 11 January 1999, quoted in Steve Negy, 'The Toshka Project', *Middle East International*, 12 February 1999.

[48] *Al-Alam al-Youm*, A study about Toshka conducted by the Association for Economic Information, "Europe-Egypt", Fribourg / Switzerland, 6 February 2003. http://www.europegypt.com/press.asp#7

[49] Gamal Essen El-Din (1999), 'Mega-projects under scrutiny', *Al Ahram Weekly,* No. 459, 9-15 December 1999.

[50] Fatemah Farag (2003), "Green desert – at what cost?", *Al-Ahram Weekly*, 23-29 January, Issue 622.

[51] Gamal Essam El-Din (2006), ´Parliament to Scrutinize Tushka Project, *Al Ahram*, 8 April 2006.

[52] http://www.constructmyfuture.com/hall-aswan.html

[53] Fatemah Farag (2000); More precious than petrol', *al-Ahram Weekly*, 17-23 February 2000, http://weekly.ahram.org.eg/2000/469/fo2.htm

[54] quoted in 'Le second Nile', *Jeune Afrique*, 27 July- 2 August 1999, pp 56-59.

[55] *Al Ahram*, 23-29 September 1999.

[56] Ahmed El-Ghamrawy and Susan Quinn, 'Egypt's Development Projects Spur Growth', US-Arab Tradeline, 9 July 1999, *Arab World Online*, www.awo.net/newspub/pubs/tradelin/990709a.asp

[57] 'Egypt's Toshka Makes Desert Bloom, But for Whom?', *Epoch times*, 20-26 February 2006, p. 3.

[58] Mohamed q in Cinq-Mars 2006; http://www.sis.gov.eg/En/Publications/343/344/366/369.htm

[59] In Egypt 'irrigation' tends to include both farming and urban water supply (Hvidt 1995, n7).

[60] Boutros Ghali: UN Secretary General; Serageldin: World Bank vice-chairman; Mohammed Abu-Zeid: president, World Water Council.

[61] quoted in Abay Tadala, 'Abay (Nile) in the news, *The Monitor*, 30 September 1999, http://www.ethiopians.com/abay/news.html

[62] See for this episode e.g.: R Louis and R Owen, *Suez 1956: the crisis and its consequences*, Oxford: Clarendon, 1989.

[63] 'Abu Zeid: African water resources not properly utilized', *Arabic News*, 19 juni 1999, http://www.arabicnews.com/ansub/Daily/Day/990619/1999061934.html

[64] Among the countless publications on the topic, see for example UNESCO's PCCP (for Potential Conflict to Peacuful Cooperation) project http://www.unesco.org/water/wwap/pccp/index.shtml

[65] Ethiopia is not just home to the headwaters of the Blue Nile, which contributed some 60% to the sum total, but also the Atbara and Sobat (both joining the White Nile in Sudan) - in sum, that's 86% of the Nile flow.

[66] http://www.ethiopians.com/abay/nilepolitics.html

[67] "Egypt a step nearer to taming the Nile, reported "Financial Times", 21 February 1998, www.uk.sis.gov.eg./online/html/o210298c.htm

[68] 'As thick as blood', *The Economist*, 23 December 1995.

[69] 'To this Ethiopia has responded with contempt and assured that 'there is no earthly force that can stop Ethiopia from benefiting from the Nile' (*ibid.*:664) and that 'We [Ethiopia] will use the Nile waters within our territory. We will not go to war unless they [Egypt] prevent us from using it' Prime Minister Meles Zenawi, May 1997, cited by Olaf Westermann (2003).

[70] Not all those dams are built on Nile tributaries. Ethiopia also has a number of smaller rivers it can exploit.

[71] 40,187,486 (July 2005 est.) Data available *at* World Factbook, Sudan http://www.cia.gov/cia/publications/factbook/geos/su.html .

[72] BBC News World Edition, *Sudan Refugees Start to Return* Jan. 12 2005, http://news.bbc.co.uk/2/hi/africa/4168081.stm> (last visited Apr. 7, 2005).

[73] http://american.edu/ted/ice/bluenile.htm based on Swain.

[74] 'Egypte bevolkt stuk woestijn in omstreden streek', *De Volkskrant*, 21 June 1995.

[75] In addition, Sudan also boasts the Roseires and Sennar on the Blue Nile and the Khashm Al-Girba and Jabal Aulia storage dams on the Atbara River and White Nile.

[76] Primarily on behalf of Uganda, but also Kenya and Tanganyika because lakeside interests would be affected all round.

[77] This controversial hydroelectric dam at Bujagali Falls, six miles downstream from the Owen Falls Dam, could be built with World Bank assistance under the Nile Basin Initiative (see 3.3.4) (Collins 2003). Egypt in fact suggested raising the level of the reservoir by one metre, to serve both Egypt's irrigation needs as well as electric generation in Uganda. After some discussion the final siting of the dam was established at the outlet of lake Victoria. Other plans have been mooted for better regulation of lake Kogai (Kyoga) in Uganda and a dam near lake Albert (Mobutu) in Congo.

[78] 'East Africans consider pulling out of Nile water treaty', *Sudan Tribune*, 16 January 2004, http://www.sudantribune.com/article_impr.php3?id_article=1487, 'Lake Victoria treaty flawed, says State', *Daily Nation*, 11 December 2003, http://www.nationaudio.com/News/DailyNation/11122003/News/News1112200356.html Cam McGrath & Sonny Inbaraj, 'Water wars loom along the Nile' , News 24, 16 January 2004, http://www.news24.com/News24/Africa/News/0,,2-11-1447_1470431,00.html

[79] 'Nile: Kahama Project 'Won't Affect Victoria', *The East African*, 16 February 2004; Tanzania's Minister of Water Resources Edward Lowasa speaking to *Al Ahram Weekly*, 10 - 16 June 2004 (Issue No. 694). (http://yaleglobal.yale.edu/article.print?id=4080).

[80] Amy Dockser Marcus and Marcus Brauchli, "Greenpolitik: Threats to Environment Provoke a New Security Agenda," *The Wall Street Journal*, 20 November 1997.

[81] Stroh (2003: 62) agrees: 'sie [UNDUGU - JW] kann daher bewertet werden als ein Versuch Ägyptens, hegemonialen Einfluss auszuüben und sich von den Oberanrainern seine Rechte aus dem Vertrag von 1959 bestätigen zu lassen'.

[82] Hydromet (Hydrometeorological Survey of the Catchments of Lakes Victoria, Kyoga, and Mobutu Sese Seku), an initiative of the East African states, supported by UNDP and the World Metereological Office that took off in 1967. At the sixty-seventh meeting of Undugu in Kampala in December 1992, the Egyptians convinced the other Undugu participants to structure it into a more scientific organization, the Technical Cooperation Committee for the Promotion of the Development and Environmental Protection of the Nile (Tecconile). Burundi, Eritrea, and Kenya and Ethiopia opted for observer status.

[83] el-Khodary, 'What is positive about the NBI?', posted 17 Dec. 2003. Also: El-Khodari, N. (2000). Toshka: Mirage or marvel. Reuters News Service, 17 December 2000..http://www.planetark.org/

dailynewsstory.cfm?newsid=9340&newsdate=17-Dec-2000

[84] http://weekly.ahram.org.eg/2001/531/special.htm

[85] 'Egypt and the Horn of Africa', *Addis Tribune*, June 26, 1998.

[86] 'Egyptian-Sudanese-Ethiopia project for joint use of Nile water', 17 September 1999, http://www.arabicnews.com/ansub/Daily/Day/99909917/19999091737.html

Chapter 3

[87] Before the Keban dam was built at the confluence of Firat (upper Euphrates) and Murat, the lowest Euphrates flow of 136 m³/sec had been recorded in September 1961 while May 1944 had seen a maximum flood of 6,600 m³/sec.

[88] Middle East Watch, Genocide in Iraq, The Anfal Campaign againt the Kurds, New York, July 1993, q. in Jongerden (1994).

[89] The major parties, PDK and PUK, also joined forces against Saddam Hussein after 1987 conducted violent feuds amongst each other and Iranian Kurds in the 1980s.

[90] Zùrcher does not rule out renewed claims on Mosul. Turkish incursions in North Iraq have continued and ambiguous statements on Mosul were made at the time of the 2003 war on Iraq and again in 2007. One version has it that should Iraq be divided, Turkey may stake its claim to the oil, rather than the cities ('Former NSC head: If Iraq falls apart, Turkey has rights in Kirkuk, Mosul', *New Anatolian*, March 2007).

[91] Arslan, Esan (2005), 'New alternative: Pax Turkistana after pax Turcica', *Turkish Weekly*, 30 June.

[92] Not all of these dams are in fact on the Euphrates or Tigris themselves - eight dams are planned under GAP in the valley of the River Munzur in Tunceli and three more on the Greater Zap in Hakkari province (KHRP 2005)

[93] Israeli maverick Boaz Wachtel also proposed a Peace Channel in the heady days of the Oslo Accords of 199x. Turkey has also offered to carry water to Israel through pipelines under the sea.

[94] e.g. www.turkishpress.com/turkishpress/news.asp?ID=17281) and www.fas.usda.gov/pecad2/highlights/2001/08/turkey_gap/pictures/turkey_gap.htm

[95] The government only recognises three minorities with a right to practice their customs: Jewish, Greek Orthodox, and Armenian Orthodox communities. The Kurds, an ethnically distinct Sunni Muslim group, are excluded from this protection (Reyes Gaskin 2005).

[96] see also her thesis: www.ata.boun.edu.tr/tezler/nilay_ozok_thesis.

[97] Daoudy calculates 1791: http://www.dams.org/kbase/submissions/showsub.php?rec=env108)

[98] 'Atatürk has a stored capacity of 48.7 km3, or over *three* years flow of the Euphrates below Atatürk Dam based on the Turkish-Syrian 1987 agreement (an average 500 m3/s = 15.8 bcm/yr).' (MacQuarrie 2004)

[99] However, the Euphrates is not only charged by Turkish flows. 'The main difference between the Euphrates and Tigris in terms of how their discharge is generated is that the Tigris receives water from a series of major tributaries in the mid-portion of its course In contrast, on the Euphrates, all of the major tributaries are in the extreme upper part of the basin (Beaumont 1999)

[100] While Turkey views the Euphrates-Tigris basin as all-Turkish, it takes the reverse position *vis-á-vis* the Orontes (or Asi) on which it is downstream (Shapland 1997). The Orontes rises in Lebanon, then flows through Syria where its flow is heavily regulated. Here, there is a strong material linkage to the continuing Syrian claim to the riparian Sanjak of Hatay (province of Alexandretta), which was given to Turkey while still under colonial rule Syrians have never accepted this decision, and ontinue to see the province as theirs.

[101] CNN, Pentagon: Iraq could flood Tigris for defence. Tactic was used to slow Iranian forces during Iran-Iraq War, 21 March 2003.

[102] 'Iraq could flood Tigris for defense', CNN.com, 21 March 2003.

[103]http://news.independent.co.uk/world/middle_east/article2843961.ecehttp://news.bbc.co.uk/2/hi/middle_east/7069109.stm.

[104] The BBC's Jim Muir in Baghdad claimed the debate over the dam has gone on largely behind ´so as not to cause public panic or attract the interest of insurgents´ (BBC, 30 October 2007).

[105] However, Syria's stance seems rather pragmatic as subsequently plans were made to supply electricity from Birecik to the Syrian capital, Aleppo.

[106] The Treaty of Friendship and Good Neighbourliness signed in 1946 by Iraq and Turkey was the first real legal instrument for cooperation. It included a Protocol for the Control of the Waters of the Tigris and Euphrates, and their tributaries. They agreed that flood control structures and storage services should be build upstream on Turkish territory, which was the most effective location. The Turks promised to provide daily hydrological and meteorological data concerning floods (Gruen, 2000).

[107] The 'one river' concept is undermined by its refusal to accept Syria's claim on the Orontes (Asi), which (now) originates in Syria.

[108] 'Syria has never recognized the incorporation of the Hatay into Turkey. There is still an Arabic-speaking population in the region, though Turks are now the solid majority. Syria does not actively press the claim, and in fact during the recent crisis over the PKK, Turkish President Süleyman Demirel explicitly warned Damascus not to raise the Hatay issue. Syrian maps frequently show the entire region as part of Syria, and during Syrian talks with Turkey regarding the reduction of Euphrates flows, Syria used the Hatay card insisting that France had no right to cede the territory to Turkey under its mandate. Turkey's position usually focuses on flow details of the Orontes River (Asi, as it is called in Lebanon), which originates in Lebanon, flows through Turkey and into Hatay province of modern Turkey' (MacQuarrie 2004).

[109] Darwish, Adel, 'Water is behind Turkey Syria border tension', *Middle East News*, 6 October 1998. Darwish's alarmist journalistic book with John Bullock, 'Water Wars' (Bullock and Darwish 1993) fuelled the environmental wars furore in the 1990s, especially in the U.S..

[110] Moreover, the Bank needs to keep some customers, such as Egypt on board in order to keep moving money; its clout is, to a great degree, a function of its huge budget.

[111] Cited in Metin Munir (2004). Turkey: Corruption Notebook. http://www.globalintegrity.org/2004/country.aspx?cc=tr&act=notebook

[112] http://www.gap.gov.tr/English/Dergi/D581997/birecik.html

[113] According to the 2005 Update of the Environmental Impact Analysis Report, ten alternatives were considered in 1971, nine of which were in a narrow valley section, one in a wider space. All were tested for watertightness in a limestone area, which made areas rich in karst, gypsum and anhydrite areas unsuitable. The conditions for Ilisu were deemed best in spite of the need for large embankments. To prevent leakage a reduction in dam height by 55 metres (from present 135) would save Hasankeyf but halve the energy capacity. A series of small dams would not reduce costs and reduce effectiveness of flood peak regulation. One or more smaller reservoirs upstream of Hasankeyf combined with a lower dam could channel water into a second basin near Ilisu to feed to turbines, an option that has the Prime Minister's ear. After 2001, an alternative (controversial) rescue plan for Hasankeyf's cultural heritage was developed.

[114] On the way to the splendid Anatolia Museum in Ankara you can see a lot of unprotected historic sites on the hill, giving the visitor the impression that there is just to much to properly protect - an embarrassment of riches is certainly in evidence.

[115] Efes, near Izmir on the Turkish west coast, is a well-known and well preserved historic site.

[116] http://www.againstcorruption.org/briberycase.asp?id=753. Meinecke (1996) refers to the study, in 1940, 'Voyages archéologiques dans la Turquie'.

[117] http://www.Ilisu-wasserkraftwerk.com

[118] The biggest problems would be posed by the foundation of "Little Palace" and the collapse of some of the roofs of the adjacent man-made cave dwellings carved in rock because there is not enough physical support (Akgün 2005) On 8 July 2005 out of three alternatives for rebuilding the affected parts of Hasankeyf, the alternative was picked that would prove the biggest touristic potential: a museum and an archeological park will emerge in the upper city.

[119] Outshoorn, Eric (2006), 'De Tigris zal Hasankeyf verzwelgen', *De Volkskrant*, 20 November 2006,

[120] e.g. 'The Ilisu Dam - a human rights disaster in the making', www.khrp.org/publish/p1999/IlisuReport.htm).

[121] Kristine Drew (2002), The UK Export Credit Guiarantee Department, Corruption and the Case for Reform, London: Greenwich University, PSIRU http://www.psiru.org/reports/2002-06-C-UKECGD.doc.

[122] According to its opponents, the reservoir will bring waterborne diseases like malaria to the region, groundwater level will fall and the riverbed will erode in the downstream area. Ecologists also worry that the dam will threaten several bird species (Bosshard 1999).

[123] George Monbiot, 'Close down the Export Credit Guarantee Department', *The Guardian*, 14 October 1999.

[124] Kurdish Human Rights Project, Corner House, Ilisu Dam Campaign (2002), Downstream Impacts of Turkish Dam Construction on Syria and Iraq, London.

[125] The Malaysian Pergau dam project, involving ABB and British company Biwater, turned into a scandal when technical development aid turned out to be tied in with British arms deliveries (the Malaysian government did not have to do much more than retract its Buy British Last-policy) and that Biwater had donated great sums to the then Conservative government.

[126] www.parliament.the-stationery-office.co.uk/pa/cm199900/cmhansrd/vo000215/halltext/00215h01.htm

[127] A passive revolution is a radical change on the mode of rule with a view to reproducing primacy.

[128] By its own admission, 'such concerns and concepts as the environment, sustainability, and participation… were either overlooked or totally absent in the original'. GAP,-RDA (2002),.*Master Plan. Background of the Southeast Anatolia Project*, www.gap.gov.tr/EnglishGgbilgi/gtarihce.html/

[129] Ilisu Engineering Group (2001), Ilisu Dam and HEPP - Environmental Impact Assessment Report http://www.ecgd.gov.uk.

[130] Morvaridi, Behrooz (1999), Stakeholders Attitudes to Involuntary Resettlement in the Context of the Ilisu Dam Project Turkey, London: Foreign Office, Export Credits Guarantee Department http://www.ecgd.gov.uk/lrgtxt/Ilisusocialreviewreport240602.doc

[131] Reported in, e.g. http://news.nationalgeographic.com/news/2000/12/1201_turkey.html.

[132] The European Union's antitrust agency summoned Siemens to sell the hydro-electricity part of its daughter VA-Tech. The asking price is assessed at 300 million euros, including the Ilisu project (Brennsell 2005).

[133] Laura Smith-Spark, Turkey dam project back to haunt Kurds, 5 August 2006, BBC News; Emíne Kart/Fulya Özerkan, Ilisu Dam: A gold necklace for Tigris or a rope around Hasankeyf's neck, Turkish Daily News, 13 August 2006.
http://hasankeyfesadakat.kesfetmekicinbak.com/news/00140/

[134] In Turkey itself, the press reports professional criticism a 'mechanical way of dealing with history' Ethem Torunoğlu, the head of a honorary board of the Turkish Union of Engineers and Architects Chambers' (TMMOB) Chamber of Environmental Engineers.

[135] ´Turkije leent miljard voor bouw omstreden dam´, *Engineering* 360º, 15 Aug 2007 www.engineering360.nl.

[136] http://www.livius.org/men-mh/mesopotamia/tigris.html.

[137] The below bizarre (and not very factual) 2003 quote from CIA´s Stephen Pelletier in the *New York Times* (q. in Selby 2005) seems to give an indication of how at least some overheated Americans in high places think:

> ´We are constantly reminded that Iraq has perhaps the world's largest reserves of oil. But in a regional and perhaps even geopolitical sense, it may be more important that Iraq has the most extensive river system in the Middle East. In the 1990s there was much discussion over the construction of a so-called Peace Pipeline that would bring the waters of the Tigris and Euphrates south to the parched Gulf States and, by extension, Israel. No progress has been made on this, largely because of Iraqi intransigence. With Iraq in American hands, of course, all that could change. Thus America could alter the destiny of the Middle East in a way that probably could not be changed for decades—not solely by controlling Iraq's oil, but by controlling its water.

Chapter 4

[138] Leo Lewis (2007), Water shortages are likely to be trigger for wars, says UN chief Ban Ki Moon, *The Times Online*, 4 December 2007. The World Wildlife Fund requests signatures for the UN Convention on the non-navigational uses of water with the slogan: 'Add your face to our online petition to stop water wars' http://www.wdm.org.uk/campaigns/water/action/stopwaterwars/

[139] or meta- narrative, a narrative about a narrative, a "global and totalising schema which orders and explains knowledge and experiences" (Www.wikipedia.com)

[140] The discipline of International Relations has never managed to rally around a single concept or theory of state, power and security. It is customary to identify three or four 'debates' or 'paradigms'. Viotti and Kauppi (1999) - Paul Viotti and Mark Kauppi, "International Relations Theory," 3rd Edition (Boston: Allyn and Bacon, 1999) for example have identified Realism, Pluralism, Globalism as main schools for educational purposes. This multiplicity is echoed in the emerging discipline of international hydropolitics identified by Waever (1997) however has noted that the debates are far more dynamic than that, and the goalposts have changed.

[141] http://www.worldwatercouncil.org/index.php?id=25 web page accessed 27 Aug 2005

[142] www.salwenpr.com/files/regenesiswaterwarsrelease.pdf

[143] The phrase was coined in the 1950s by John Herz (1951) when fear of nuclear destruction persuaded people to pronounce they would prefer to be Red than dead. In global terms, to foreclose (or avenge) any infringement on their territory, the US feels legitimised to infringe on other countries´ sovereignty, eliciting resentment (Hassner's 'empire of force').

[144] A river basin is the area of land from which all surface run-off flows through a sequence of streams, rivers and lakes into the sea at a single river mouth, estuary or delta. In: European Environmental Agency multilingual environmental glossary, http://glossary.eea.eu.int/EEAGlossary/R/river_basin, 2 February 2003.

[145] Critical analysts have pointed out that the call for hegemonic order was matched by a ready supply. The end of the Cold War had put the purveyors of (American) statecraft into an existential crisis (Ó Tuathail 1999). The US had come out as the victorious, reigning global power, but what, who was the enemy? The world found itself with an introspective hegemon, while the Pentagon found itself without a clear mission. A debate in academic and security policy circles ensued whether the concept of security' should be enlarged to include economic and environmental conflict.

[146] After Molle (2003) I will take Turton and Ohlsson as a 'strawman example', mindful that there are several similar accounts, such as Gardiner, Molden and Newson, and indeed, as I have no rights to cast the first stone, Green and Warner (1999) and Warner and Turton (2000).

[147] http://www.lrcj.org/Studies/Strategies_Soil_Mediterranean/Strategies_Soil_Mediterranean.htm. Idisagree here with Turton who appears to see complexity as a threat to security.

[148] According to the Corner House, an activist NGO, Turkey refused the Commission to investigate Ilısu as a case.

[149] www.aber.ac.uk/media/Documents/S4B/sem02a.html

[150] Likewise, the water department as the principal resource manager has become institutionalised as if they have always been there but this state of affairs can be 'de-' and 'reconstructed'.

[151] Kooiman, and currently Teisman at Rotterdam School of Management pioneered the application of complexity science in their studies of governance.

[152] United Nations Development Programme (UNDP) (1994), Human Development Report 1994, New York, United Nations.

[153] According to Brouma (2003), there are three narratives of the change from modernity to post-modernity: shock, evolution and mutual engagement. I will not go into the non-shock alternatives here bujta acknowledge their validity

[154] some of whom are not even from or in Copenhagen (Buzan is British and de Wilde Dutch)

[155] and therefore is branded more 'European'.

[156] When facing stress or shock, there are two extremes of adaptive response responding. One is the hard surface, closely-coupled, the tit for-tat, all-out, one-size fits all, centralised, homogenised approach., containment, the show of force - the Hammer. At the other end of the scale, we find the loosely-coupled, modular system: the Sponge. Complexity studies advocates modularity, redundancy, to cushion and spread shock impact

[157] Jyrki Käkonen (1988), Natural Resource Conflicts and Changes in the International System. Three Studies on Imperialism, Avebury.

[158] In Barcelona 80,000 families reused to pay their water bills in protest of low quality and high rates.

[159] This dual focus interestingly links the two attractors of psychological security, 'eros' and 'thanatos', or the bottom and the top of Maslow's pyramid of needs (Warner 2004).

[160] We have seen that the ´Lockeian´ water peace narrative protects property rights For Locke, like for the ancient Greeks, the definition citizenship only pertains to those who have possessions, that is, something to lose. ´Enclosure´ refers to the development of agricultural capitalism in Britain, in which the commons

were *enclosed* for mass agricultural production ('sheep ate men') creating a class of landless, disenfranchised citizens. This 'social closure' thus excludes the poor and landless who till the commons. In the case of Cochabamba, as in other countries where water was privatized (e.g. Chile), traditional rights were negated.

[161] Based on the work of the anthropologist Eric Wolf, Johnson and Donahue (1998: 346) identify three types of water management, based on three different values of water: political, economic and social (cultural). The third narrative stresses the social value of water.

[162] The water hegemony narrative depicted here should not be equated with the current developments on hydro-hegemony in the London Water Issues Group. While sharing many concerns of equity and power asymmetry with critical scholarship, the London group is more heterogeneous in outlook and seeks to engage in active dialogue with policymakers and water practitioners. For an introduction to the hydro-hegemony 'school', see Zeitoun and Warner 2006.

[163] Overlay occurs when 'one or more external powers move directly into the local complex with the effect of suppressing the indigenous security dynamic'. Barry Buzan (1991)

[164] Davidsen (2006) arrives at the same conclusion on Southern Africa.

[165] As Waever has noted (1997), a ´neo-neo-consensus´ appears to have emerged in the discipline of International Relations, with 'neo-liberals' roughly agreeing with 'neo-Realists'.

[166] These authorsr however focus on the legal regime only; see also Mbaziira et al, n.d., on the upstream regime.

[167] Wendt (1999) calls these states Hobbesian, Lockeian and Kantian states respectively. Kantians (or Gtrotians, after Grotius´ De bello ac Pace) believe politics can be overcome as we inexorably move towards a peaceful world society. I did not encounter instances of Kantianism in the present study.

[168] Dore (2007) shows there is still an abundance of regional water conflict factors at several levels.

[169] From a political ecology perspective, meshing very well with the approach taken in the present study, Waller (1994) defines regimes as

> '...society's management and use of a natural resource, both the means used to extract a resource like water from the natural environment to the ends towards which its exploitation is directed, is (…) structured under a set of legal statutes, social norms, cultural practices and political institutions. Given the ability of modern technology to control nature, these rules, values, habits, laws, regulations, public policies, authorities and bureaucratic agencies, now largely determine our relationship with a natural resource. A water management regime, then, includes the knowledge, organizations and human choices which determine who gets water and when, from where and for what purpose and price, and how it can and should be used' (Waller, 1994: 16).

[170] "Either the text can effect closure of a problem via a meconnaissance which denies the Other, or it can give new meaning to a problem via recognition of a problematic which denies not the Other but the Other's already known conditions of existence" (Burton & Carlen, 1979: 33). In official discourse a situation or a problem is "closed" by the displacement of one paradigm by another. It is no accident that discourse analysis has been characterized as deconstruction in order to point out that the goal of analysis is disclosing something that was consciously or unconsciously "closed".

[171] http://www.svf.uib.no/sfu/oestigaard/ArtiklerWeb/Australia/Oestigaard_Water.pdf

Chapter 5

[172] In 1995, FAP-20 was rechristened the Compartmentalization Pilot Project, which confusingly shares its acronym (CPP) with a subsequent Bangladeshi scheme, the Coastal Protection Project. For that reason, the present document will generally refer to FAP-20 despite the name change.

[173] Sharmeen Murshid, 'Water Discourse. Where Have All the Women Gone?'; *The Daily Star*; no. 322, 15 July 1998 and 17 November 1999.

[174] In practice the World Bank approach was quite hands-off, especially after 1991-2 when the Narmada Dam controversy erupted in neighbouring India. As a result, respondents are equally split between those who feel the Bank did a fair job, and those who feel they made a shambles of it.

[175] Germany also invested 39 Million Deutschmark in the Jamuna protection and stabilisation project FAP 21/22.

[176] http://www.sed.manchester.ac.uk/research/ippg/PDF/IPPGCountryStudyNo2.pdf

[177] Thus BRAC moved from Relief Assistance to Rural Advancement.

[178] http://www.transparency.org/news_room/in_focus/2006/cpi_2006__1/cpi_table

[179] NGOs cannot escape the spiral of corruption. The NGO desk is under the Prime Minister's Office, which reportedly demands bribes for its services. The desk can decide whether an NGO is eligible for an internationally funded project. Due to the politicisation of aid policy, the desk may be tempted to give the go-ahead to projects that may be harmful to government policies (ints BNGO). The national security argument can be exercised, Ahmed (1999) quotes from a 1988 circular: 'The participation of NGOs in development will be encouraged if otherwise not found detrimental to government policy or national security'.

[180] 'Hague wants to place FAP before JS", *Daily Star*, 4 June 1994.

[181] The endless political strikes have been so disruptive to economic life that the Chambers of Commerce have intervened in politics, though some claim that this serves the political ambitions of individuals rather than the sectoral interest (Kochanek 2000).

[182] e.g. Nizam Ahmed (2003), From Monopoly to Competition: Party Politics in the Bangladesh Parliament (1973 - 2001), *Pacific Affairs*, 76 (1) 1, pp.55-77, Owen Lippert (2005), 'Overcoming Bangladesh's democratic deficit', *Inroads*, Summer 2005.

[183] A good example are the Association of Engineers of Bangladesh Water Development Board's 'Comments on draft Bangladesh Water and Flood Management Strategy proposal by FPCO in March', 1995).

[184] Apart from the issue whether they are equipped for this, it is the fundamental prerogative of the executive to set conditions and evaluation standards.

[185] The 'basket case' label, carelessly applied to Bangladesh by Henry Kissinger worrying about that the country's poverty could tilt it towards communism, has stuck and reinforced the view of a country that cannot take care of itself. In addition to its admittedly weak economy, the aid community portrayed Bangladesh as having one of the most fragile, vulnerable environments in the world, threatened by uncontrollable dangers ranging from India's Farakka Dam to deforestation in the Himalayas and sea-level rise (Bradnock & Saunders 2000). Because of its booming population, land is in critically short supply, and forever threatened by uncontrollable waters.

[186] Japan is currently the biggest bilateral aid donor followed by the US (Kronstadt 2003).

[187] http://siteresources.worldbank.org/EXTWSS/Resources/337301-1147283795581/FloodStrategyatWorldBank.pdf

[188] FAO, The State of Food and Agriculture (SOFA) 1997..

[189] http://www.fao.org/ag/agL/swlwpnr/reports/y_sa/z_bd/bd.htm#hazards

[190] The resentment and frustration over this Indian move is echoed in the comments by the Bangladesh Association of Water and Power Engineers. A paragraph in the 1995 National water strategy (FPCO) predicting the drying up of the Ganges below Farakka was slammed by the Association as 'suicidal' rather than a realistic resignation to regional geopolitical realities.

[191] Troubled by the Farakka dam, Bangladesh raised the Ganges issue with the UN General Assembly in 1976, leading to n agreement in 1977. India was however slow to renew the agreement. Bangladaesh mooted its own Ganges barrage in the 1970s, but has not yet built it. In 1996 a treaty to share water on shared rivers between India and Bangladesh. India's river linking plan however would transfer water out of the Brahmaputra into the Ganges. Reservoirs have been built in India on the southern Ganga branches, but not yet on the northern ones that affect Bangladesh.(ur-Rashid 2005. Harun ur-Rashid, 'How can Bangladesh respond to Indian river-linking proposal?', 5 January 2005, *Daily Star*, Dhaka.

[192] 'The arrogance! What he says is right and he won't listen to anyone else (…) He is a liar.' (pers comm.)

[193] The Surface Water Modelling Centre, Dhaka, has continued to model a sequence of compartments along the Jamuna despite the abandonment of compartmentalisation.

[194] http://www.kfw-entwicklungsbank.de/EN_Home/Evaluation/Further_Information/Ex-posteva43/PDF-Dokumente/bangladesh_com.pdf

[195] FAP Monitor 4, 2(1), RAS, July 1996.

[196] Outraged, Van der Laan protested, but on his return, it was too late to stop it. Anyway, 'The Hague was okay with anything' (interview Dutch consultant). Euroconsult was unhappy too, and decided to build the sluices without the gates - these would have to await the participatory process (Jansen q. in Smit 1993). Piet Wit, who participated in the Dutch ministerial mission is quoted (in Smit 1993) as hinting that this

stance may well be about the rich pickings to be had from construction. Whichever the case may be, Dirk Frans, the sociologist who devised the alternatives, left the project in a huff over this, but came back several times to help out and is now again involved in the Asian Development Bank´s Southwest Area IWRM project.

[197] There is of course a predictable overlap in stakeholder identities – boatmen may double as farmers or fishermen, who in turn may be women. Also landowners tend to diversify between plots at different altitudes and had plots inside and outside the project area.

[198] It was open to manipulation by literate local leaders and project staff. A report by UST, another Dhaka-based NGO (Kalimullah *et al* 1995) claims *chawk* committees were selected 'by hook and by crook' by lFAP authorities. NGOs report physical threats on the part of musclemen hired by contractors.

[199] For a critique of this report, see W. van Ellen, 'Om de toekomst van Bangladesh', *Trouw*, 13-6-1995.

[200] in ten meetings held between April and November 1992 (published March 1993*), the tortuous genesis of which is detailed in Hanchett (1997), who was involved in them.

[201] A fatalist mindset; for an analysis within a cultural-theory framework, see Warner, 2006b.

[202] To be fair on the French, FAP projects that were eventually adopted by Franch did include experiments participation.

[203] For example, the Dutch Inspectorate's report on FAP 20 (IOV 1993) loosely mentions security without explaining it, while the UNDP (Faaland *et al.,* 1995) speaks of 'security, productivity and other development objectives' which places security square in the middle of a modernisation drive. The fifth of the Eleven Guiding Principles requires the 'safe conveyance of the large scale cross border flows to the Bay of Bengal' without explaining how safe and for whom it should be safe.

[204] While the World Bank put the death toll in those two years at more than 3000, and the official number was put at 2379[204], Saleemul Huq (BCAS) claimed that '(t)he floods claimed only few victims, about 2000' (Salm 1995), Wood (1999) puts the figure at 1800 while Proshika puts the number at 'only 1500 - a lot fewer than are killed in traffic each year' (Salm 1994). FPCO's Kamal Siddiqi quotes the same number. According to Pieter Smit, a critical Dutch political scientist, even that number is strongly exaggerated (Smit, 1993).

[205] 'Govt urged to suspend FAP activities', *Daily Star*, 26 November 1995.

[206] Although the UNDP report seems to advocate a critical engagement even with this assumption, noting the urban bias does not bode well for the urban poor (Faaland *et al.*, 1995).

[207] We should not be too idealistic about the beel as a 'common pool resource', though. While open-access de jure, there are unofficial de facto (nested) property rights. These informal rights may take precedence over formal rights.

[208] The implication of controlled flooding is to sacrifice less valuable land for the benefit of more valuable land. Parker (1992) for example predicted that the embanking programme would increase the number of homeless as their land would be acquired to accommodate embankments and for sources of earth. This was not communicated

[209] However conflicts are not always so clear-cut as people who own land on one side of the embankment may live on the other side.

[210] While the FAP case was not selected for the main event, its case generated considerable publicity when it was brought forward at the 2nd International Water Tribunal in Amsterdam in 1992.

[211] It may be countered that NGOs had aligned themselves quite early on in two umbrella organisations, ADAB and CEN, and that they were very well informed "through the grapevine" about each other's work.

[212] Which, for the poor, is almost synonymous to saving lives.

[213] To be eligible for services, some interviewees argue, the poor need to sign up to NGO membership, which lands them into a patron-client relationship with the NGO, which as a quid pro quo may require their loyal participation in protest activ

[214] Beckers, Verspaget, Tommel, Terpstra.

[215] A Dutch consultant notes that Tangail however is a rather different setting - Dakatia is a tidal, undiked area, Tangail was part-embanked and has no influence from tidal motion (int Dcon 1).

[216] FAP 3.1 (Jamalpur), built on a compartmentalisation concept similar to FAP-20, became controversial as the 1.5 million c*har* dwellers living in and in the strech of theJamuna immediately adjacent to the project area demanded protection and other protests over impeded fish migration and compensation. It was claimed that in total, FAP 3.1 would displace 6 million people. The original terms were radically revised to provide for flood proofing (UNDP 1995). When first the European Parliament called for a moratorium

on construction (*Bangladesh Environmental Newsletter* 6(2), April-June 1995), and later on the Dutch and German donor balked (See below), pushed by persistent NGO protest, the participation aspect was eventually significantly upgraded.

[217] When there is resistance to a project, the Asian Development Bank, the World Bank's regional sister, 'gets the highest managers in and forms a very heavy evaluatory commission. NGOs play on that, it's an instrument of political power.' (interview, Dutch consultant con3)

[218] In the 1994 BELA case, FAP-20 was also claimed to endanger two archaeological sites listed under the Antiquities Act, 1968: the Attia Mosque and the Kadim Mamdani Mosque. Mohiuddin Farooque and Sekandar Ali Mondol vs. Bangladesh (in Writ Petition No. 998 of 1994), in UNEP Partnership for the Development of Environmental Law and Institutions in Africa (PADELIA) (2001), Compendium of Judicial Decisions on Matters Related to Environment, Vol. II National issues pp. 112-128, http://www.unep.org/padelia/publications/Compendium_Vol__II.pdf

[219] *Bangladesh Observer*, 6 September 1996.

[220] The Court however ruled in 1997 the Minister should draft new bye-laws to regulate compensation.

[221] This fifty-fifty partition is for the dry season (March-June). In case the flow below Farakka is 70,000 cubic feet per second (cusecs) or less – if the amount is between 70 and 75,000, Bangladesh receives 35,000 and India the balance; if over 80,000 cusecs Bangladesh gets 40,000 and India again gets the balance (Sands 1997).

[222] 'India zal water Ganges delen met Bangladesh', *De Volkskrant* 14-12-1996.

[223] Natural causes were claimed by officials. Alternative stories quickly emerged: some Bangladeshi interviewees claim to have heard explosions reinforcing a local feeling their area was the site of a real-life experiment. Others (mainly Dutch) say one bank may have been strategically eroded so that it would collapse at the next major wave action in due course, while the then Team Leader claims it was unclogged by hand paid for by the World Food Programme.

[224] Bangladesh Ministry of Water Resources, 'Report on the Flood Action Plan', 1994

[225] The Indian Farakka Dam was built on the Ganges without prior consultation with Bangladesh in 1975, to conserve water from the river Hooghly for the winter season. Even bigger projects to solve Bangladesh's flood problems include international schemes, notably upstream dams in Nepal and Assam. A problem however is that these will have a marginal effect on the water level (Berne University 1995).

[226] This aspect was indeed firm in the minds of the local population: the FAP-20 recipients identified 'flood control' as the project's number one objective, rather than 'water management' (Shamunnay 1996).

[227] As the Bank-Netherlands Partnership programme puts it:

'The donor community criticizes [*sic*] the BWDB for a long period of time. The focus of the critiques is the incapability of the BWDB to incorporate integrated and participatory approaches in project development, to transfer projects to local stakeholders and to work in a transparent and accountable manner. Therefore the BWDB has become a less attractive partner for international financiers and donors.'

(www-esd.worldbank.org/bnwpp/index.cfm?display=display_activity&AID=64&Item=4

[228] A Diploma Engineer does not have a university education, which according to a BDWB interviewee is symptomatic of the low status accorded to FAP 20.

[229] The 'epistemic community' approach to regimes developed by P. Haas (1992) sees regimes as a way of reducing 'noise' in providing a clearing house for information, enabling the participating actors to learn. New functional knowledge may lead to evolutionary change, changing rules and procedures as the regime 'learns', or revolutionary change, generating new principles and norms. 'Epistemic communities' converge on a body of accepted scientific procedure and evidence.

[230] When in the end, a proper hydrological model was drawn up, which by a stroke of luck turned out to have unexpected benefit in flood *prediction* (Bcon3).

[231] This fulfilled the catastrophic potential of rivers predicted by the Bengali professor Mahalanobis in 1927 and later in 1964, by the Dutch Professor Thijsse. This cast new doubt on the control paradigm that was already sown when the Mississippi flood showed the impossibility of taming some floods - a message that was carried over into the Hughes report on Bangladesh, on which Shapan Adnan co-authored (Hughes *et al.* 1994).

[232] Such symbolism may be galling for the project's initiators, but by no means unheard-of (cf. the Jangali Canal in Sudan which became the focus of the civil war there, Gap for the Kurdish uprising and Maaswerken for East/West relations.

[233] for powerful pumps to support the drainage of polders - in this respect the experiences are not very different from the mixed results of poldering in Bangladesh.

[234] http://fpc.state.gov/documents/organization/19701.pdf

[235] Water security is now defined to mean that all people, including the world's poor,

- have access to water services to meet their basic needs
- are able to take advantage of the opportunities that water resources provide
- are protected from water-related hazards
- have recourse where conflicts over water arise.

Chapter 6

[236] The Maas has 30 tributaries, some of which cross country borders, so that catchment in fact includes Luxembourg and a minor part of Germany.

[237] See Dossier Cllr G. Meerten (Unie 55plus), http://www.sdnl.nl/meerten8.htm

[238] It should be noted that in Dutch, 'flood' translates as *overstroming* (flood, inundation) as well as *hoogwateroverlast* (inconvenience/nuisance caused by high water'). The semantic difference came crucial in 1995, when there was no flood *crisis*, though the water did cause nuisance on the Maas in Limburg. In the chapter, Dutch *hoogwater* will be represented by the admittedly inelegant literal translation 'high water (event)' to differentiate it from a flood (crisis) event.

[239] Alternative 2b involves: '(1) combined gravel and sand mining and nature development in the Grensmaas, (2) combined floodplain lowering and sand sand mining in the Maas between tussen Roermond and Mook, (3) constructing 60 km of *kade* in locations where the water level does not drop enough as a result of part(1) and (2), (4) administrative spatial planning measures (e.g. zoning, JW) to prevent future damage and (5) modifications in sewerage and other small-scale measures at municipale scale.' (Teisman 1995, my translation)

[240] This story was related to me resolutely off the record by a Delft-based consultant, then confirmed by a local interviewee.

[241] Examples are the Royal Dutch Societ of Geographers (KNAG) e-conference, 1 April 1999; *De Volkskrant*, 13 March 2000.

[242] VPRO De Ochtenden, Radio 1, 12 and 15 June 2001.

[243] 'De Maas zou nóg meer ruimte moeten krijgen', *De Volkskrant*. 26 February 2002.

[244] Van der Ven is quoted approvingly by a Mook spokesman in *De Gelderlander*, 2 June 1999.

[245] Still, one interviewee was disappointed that Van der Ven's challenges did not generate a more lively exchange of views. 'It is telling how his criticism was not picked up in the press and the debate died down. In a way that is unfortunate'.

[246] 'Irritatie, ergernis en zorg over te lage Maasdijken', De *Gelderlander*, 15 June 1999.

[247] 'Van Voorst tot Voorst: Maas had hoger gemogen', *de Limburger*, ed. Zuid, 21 January 2000.

[248] 'Geen magere alternatieven voor de Maas*, De Gelderlander*, 10 June 1999.

[249] Adapting the channel, bridges and harbour facilities facilitating four-layer cargo, enabled shipping capacity to go up from 40 to 60 tonnes of cargo. The arrival of a new, shipping-oriented Minister for Transport in 1998 boosted the Maas route element of the project, in so doing promoting the project as a whole. While the Maas route did not bring about as much controversy, it did lead to a (sustained) appeal to the Council of State over houses being torn down and natural values to be sacrificed for improved navigation in the Juliana Channel, which runs alongside the Common Maas. This forced the Maaswerken to go back to the drawing board for alternatives. 'De Maaswerken: verbreding Julianakanaal zonder ingrijpende afgravingen', *De Limburger,* 14 December 2004.

[250] On KNAG Discussieforum, response to article by G.P. van der Ven.

[251] Peet Adams, 'Een brave straatvechter', *De Limburger*, 5 June 2002.

[252] Math Vestjens was one of the most fervent defenders against deprioritisation of the project ever since taking office in the Provincial Council in 1995 and the Provincial authority in 1998.

[253] The 'risk equation' (supply and demand) can be said to be unbalanced when the threats or risks are not balanced by pledges to take responsibility for them. This was the case for Maaswerken project.

[254] The dredging industry has complained that '(p)otentially more cost-effective measures are not even considered' VBKO (Vereniging van Waterbouwers en Bagger-, kust- en oeverwerken), *Hoofdzaken in 1997*.

To my knowledge the dredgers have not come up with a new alternative however.

255 *De Limburger*, 29 November 1997 and 1 December 1997.

256 Twan Mientjens, 'Niet tornen aan budget Zandmaas', *De Limburger*, 15 June 2001.

257 Peet Adams, 'Lobby-offensief voor Grensmaas', *De Limburger*, 3 July 2003.

258 'Geen zin in grind Grensmaas', *De Limburger*, 27 April 2001; 'Provincie Limburg wil Maasplassen terugkopen', *De Volkskrant*, 27 september 1999. Unie 55+, one of two minor political parties representing the elderly at the time, also took up the issue of Aqua Terra and published its letters to the Minister and Provincial authorities on-line; the documents are available from http://www.sdnl.nl.

259 Councillor G. Koopman, who made this observation, soon was to move on to the House of Commons, where, in 2004, he demanded an investigation on the part of the State Comptroller into the financial management of the Maaswerken project organisation.

260 'Vestjens voelt geen pressie bij koop van Maasplassen', *De Limburger*, 19 June 1999.

261 Equivalent to the Department of Trade and Industry in the UK.

262 K. Wu, Rijkswaterstaat communication officer, quoted in J. Dohmen and J. van der Sande, 'Tegenslag voor 'krankzinnig plan', *NRC*, 20 March 1999.

263 Despite the policy guideline RWS was negotiating with municipalities to allow only very limited construction in the floodplain, the Minister for Transport granted Oolder Veste, a new residential area, 'pipeline status' which means dispensation from the moratorium on building in the floodplain (Wolsink 2006). T de Haan, then Chief Inspector for Limburg, is unhappy about it from a river management perspective. 'But once the Minister has decided, this is a 'hard fact' for us we cannot contravene' ('"Slaapverwekkend of rond-Hollands" betogen over Oolder Veste', *De Limburger*, 23 December 1999.

264 Social organisations can have academic research carried out at a reduced or waived fee at a Wetenschapswinkel. It published 10 volumes of research on the Grensmaas in 1997 and 1998.

265 The front page shows a severely flooded pedestrian crossing; only the post stick peers out from the water to underscore the message on page 2, that the 'damage and consequences of the high waters in 1993 and 1995 are still etched in everyone's memories'.

266 http://www.rijkswaterstaat.nl/wateroverzicht/maaswerken/, accessed March 2006.

267 *Nieuwsnet Limburg*, 27 May 1999.

268 *De Gelderlander*, 10 June 1999.

269 *De Limburger*, 12 March 1999.

270 'Maaswerken van start. ik durf nu hier te blijven', *De Limburger*, 18 June 2005. The municipality of Haelen contracted of its own accord Kupers, a private company, to provide big inflatable bags, which can be in place within 36 hours in case of emergency (*De Limburger*, 1 February 2002). Meanwhile, Roermond now has a mobile water dam, shaped like an 'inflatable sausage' (*De Limburger*, 25 October 2001). http://www.snlm.nl/archief/zm251001.htm

271 'Bewindsvrouw vals voorgelicht over plan hoogwatergeul', *De Limburger*, 3 July 1999

272 The works themselves temporarily increase flood risk while they are under construction. A former Maaswerken official (interview, August 1999) said it is not clear to him how this residual risk is accounted for.

273 'Weigeren grindwinning terecht', *De Limburger*, 17 January 2002.

274 http://www.archis.nl/content/nieuwe-content/P_Maaswerk-01.xml.asp

275 'Arcen en Velden voert overleg over strategie Zandmaas', *De Limburger* , 28 November 1998.

276 Kamervragen Maaswerken, answers 11 dated April 2000 to questions 30 March 2000 posed by Stroeken and Biesheuvel, www.verkeerenwaterstaat.nl%20cend%20bsg%20brieven%20data%20955455440_tcm195-142280.pdf

277 'Limburg trekt zich terug uit Zandmaas', *De Limburger*, 5 October 2000.

278 *De Gelderlander*, 13 August 1999.

279 HKW/AK/3552/992, 2 April 1999.

280 *De Gelderlander*, 13 August 1998.

281 De *Limburger*, 8 June 1999.

282 'Rijkswaterstaat betaalt mee aan 'blauwe knoop' bij Den Bosch', *WaterForum Online*, 20 oktober 2005

283 Geo-Control B.V., Exploitatiemaatschappij L'Ortye Stein B.V., Vereniging tot behoud van Natuurmonumenten in Nederland, Boskalis B.V., HAM-Van Oord-Werkendam B.V., Ballast Nedam Baggeren B.V. en Van den Biggelaar Aannemingsbedrijf B.V.

284 ''Idiote" nieuwe kade dwars door centrum Blerick', *De Limburger*, 13 April 2001.

285 'Limburg staat toch extra grind uit Gresnsmaas toe', *Financieele Dagblad*, 10 July 2000.

286 Peet Adams, 'Nauwelijks extra natuur bij Zandmaas', *De Limburger*, 31 January 2001.

287 'Groeiend verzet tegen Maasplan en grindwinning', *NRC Handelsblad*, 6 Febuary 2001; Peet Adams, 'Milieufederatie stapt naar rechter tegen Grensmaas', *De Limburger*, 17 February 2001.

288 Annelies Derkx, 'Hoog Water in het Haelens Broek en Horn', *De Streekbode,* 20-2-2002*,* http://home.hetnet.nl/~milieustichting/drie.htm

289 'Toename verzet tegen ontgrinding bij Bunde/Geulle aan de Maas, *Limburgs Dagblad* 2 May 2001.

290 Arthur Sassen, 'Geulle zegt 'NEE' tegen ontgrinding', http://www.geulle.com/geulle/nieuws/250401nieuws.html

291 Borgharen, Itteren, Bunde/Voulwames, Geulle, Meers, Schipperskerk, Illikhoven, Vissersweert, Roosteren, Stevensweert, Horn, Haelen, Buggenum, Nunhem, Velden, Lomm and Arcen.

292 *Limburgs Dagblad* 31-1-2002; Paul Seelen, 'WML vreest gevolgen werk aan Grensmaas', *Limburger*, 16 May 2002.

293 http://home.hetnet.nl/~milieustichting/achttien.htm *Limburger* 10-7-2002

294 I owe this point to the Maaswerken's current stakeholder communication manager, Victor Coenen.

295 Peet Adams, 'Een brave straatvechter', *De Limburger*, 5 June 2002.

296 Bosscherveld – Geulle aan de Maas - Meers – Maasband – Urmond; - Nattenhoven – Roosteren

297 Inspraak door de heer N. Naus, Progressief Born en Federatief Verband tegen Ontgrondingen, verslag van de extra vergadering van de vaste Commissie voor Verkeer en Waterstaat, Provinciale Staten, Limburg, 16 February 2001 (www.limburg.nl).

298 http://www.geulle.com/leefbaar/leefbaar_bericht5b.html, 4 November 2001.

299 'CDA wil natuur schrappen in Zandmaas', *De Limburger*, 18 January 2003.

300 'Provincie wil Grensmaas niet openbaar', *De Limburger*, 15 November 2001.

301 The brochure 'De verkorte tracéprocedure en insprasak' published by Verkeer en Waterstaat Inspraakpunt, explains the procedure, a bemusing mix of openness (participation) and closure (shortened decision-making trajectory) http://www.rijkswaterstaat.nl/images/Verkorte%20Tracewet%20brochure_tcm174-127824.pdf

302 Committee minutes: Verslag Commissie Vergadering Grondgebied, Arcen en Velden, 6 January 2003, www.arcenenvelden.nl/servlet/nl.gx.webdam.client.http.GetFile?id=348793

303 'Lomm Actief vraagt Kamer uitstel voor Zandmaas', *De Limburger* 23 October 2000; 'Klachten bij Europese Commissie tegen gunning Grensmaas', *De Limburger*, 18 December 2001.

304 http://www.nma-org.nl/archief1998/besluiten/bbb/bbb0095-9810.htm

305 'Under Dutch law, expropriation is not an option if the land-owner is able to carry out the desired work, and gravel extraction companies can arguably carry out river widening measures.

306 The Consortium Grensmaas bv, consisting of the Panheelgroep, de Combinatie Regenboog VOF and Natuurmonumenten.

307 'Ook aanbesteding Zandmaas stuit op verzet van Brussel', *De Limburger,* 20-12-2003.

308 Delfstoffen Combinatie Zandmaas. Peet Adams, 'Europa keurt Grensmaas nog steeds af', *De Limburger*, 17 November 2003.

309 This offered a choice between five options ('Lansink's Ladder'):
   1. topsoil continues to be used as topsoil
   2. soil as construction material, eg for dikes and kaden,
   3. reuse of topsoil after processing (e.g. ripening or immobilisation),
   4. storage in lakes, clay screens or depots
   5. transport to well known dump sites (such as Slufter and Hollands Diep).
Beleidsnotitie Actief Bodembeheeer Maas, http://www.rijkswaterstaat.nl/rws/riza/actiefbodembeheer/documenten/ABM-beleidsnotitie2003.pdf

310 The so-called *Pikmeerarrest* established public servants and eagencies cannot be prosecuted for carrying out legally prescribed administrative tasks. When the ruling was reviewed in 1998, the Supreme Court decided only national authorities enjoyed this immunity,

311 Peet Adams and Bjorn Oostra, 'Topberaad over stort Maaswerken', *De Limburger,* 2 Febuary 2002. Also see Van der Meulen *et al.* (2006: 166).

312 'Ondanks druk zwijgt Vestjens over stort Maaswerken', *De Limburger*, 18 August 2001. Peet Adams, 'Zuiveringschap komt al in actie tegen Maaswerken', *De Limburger*, 29 November 2001.

313 Peet Adams, 'Volledige top van De Maaswerken weg', *De Limburger*, 25 January 2002.

³¹⁴ According to D66, project implementation funds for the Eindplan had been transferred to policy preparation funds, thus explaining the remarkably high sum.

³¹⁵ 'Maaswerken slorpte al 150 miljoen euro op', *De Limburger*, 5 June 2002.

³¹⁶ 'Spreekverbod voor topman Huurman van Maaswerken', *De Limburger*, 5 June 2002.

³¹⁷ 'De Maas zou nóg meer ruimte moeten krijgen', *De Volkskrant,* 26 February 2002.

³¹⁸ http://www.bodemnieuws.nl/nieuwsbrief/2004-13/nieuwsbrief.html

³¹⁹ 'Rijk dreigt Grensmaas af te blazen', *Bodemnieuws Nieuwsbrief*, March 2005. http://www.bodemnieuws.nl/nieuwsbrief/2005-07/nieuwsbrief.html

³²⁰ Peet Adams, 'Akkoord beveiliging Maas in M-Limburg', *De Limburger* 2-7-2004.

³²¹ http://rijksbegroting.minfin.nl/

³²² *De Gelderlander*, 2 June 1999.

³²³ These non-urban areas include an area between Roosteren and Linne, where a horticultural zone and isolated agrarian businesses would remain unprotected, and be affected by upstream interventions as well. Also, Haelens Broek and De Kemp were not embanked when RWS decided on second thoughts not to construct a dike there.

³²⁴ As marl excavation on the Belgian side has given rise to a 7 m drop very close to the river, this is not always feasible. Interview, stakeholder manager, Maaswerken, 2006.

³²⁵ 'Plan voor verwerken Maasslib' , *De Limburger*, 8 November 1999.

³²⁶ 'Alweer nieuw plan voor beveiliging Maas in', *De Limburger*, 19 December 2001.

³²⁷ Notably, the deepening of the binational Westerschelde channel and the reinstatememt of the IJzeren Rijn railway line crossing Dutch territory, in an area of scenic beauty see for ezample: 'Alterra: "IJzeren Rijn ramp voor Meinweg"', *De Limburger,* 23 November 2000.

³²⁸ *De Water,* No. 108, July 2005.

³²⁹ http://www.geulle.com/leefbaar/leefbaar_bericht12.html, Infobrief No. 14, September 2005. Also: Wido Smeets, 'Handen af van het Limburgse landschap', *De Limburger,* 10 July 2002.

³³⁰ Sometimes conflated: Landscape is 'securitised' by one stakeholder as part of the cultural heritage

³³¹ Paul Bots, 'Gaten in kaden dichten gaat niet zomaar', *De Limburger/Limburgs Dagblad*, 6 November 2007.

³³² In response to those protests, the Province of Limburg commissioned the national technical research bureau TNO to research the effects of the dredging mills. 'Machines Grensmaas onder de loep', *De Gentenaar*, 13-8-2002, http://www.gentenaar.be/Article/Detail.aspx?articleID=nbra14082002_045

Chapter 7

³³³ It is acknowledged with thanks that the study was sponsored by Wageningen University´s ´Boundaries of Space´ programme. A slightly shorter version of the present chapter appears in the *International Journal of Water Resources Development* in March 2008.

³³⁴ e.g. '... participatory approaches generating consensus and enthusiasm within the community for adoption of IFM; autonomous management; and mechanisms for equitable distribution of benefits.' (www.nisp.org).

³³⁵ The Dutch Disaster Act of 1985 defines a disaster as 'an event that endangers the life and health of a large number of people, or causes severe harm to material interests, and requires coordinated efforts from various fields of expertise' (Rosenthal and 't Hart 1998: 113).

³³⁶ When a concerned Prince William Alexander inquired what the flood had been like, people responded; 'what flood?' (http://www.wrlent.nl/downloads/achtergrond26april.pdf). The Prince also appeared to believe that controlled flood storage would save Rotterdam, but this does not make much hydrological sense (interviews).

³³⁷ Note that the respondent does not talk about conferring with stakeholders.

³³⁸ It was a variety of the legal concept of a 'calamitous polder', a polder that so often has to cope with flooding that polder inhabitants cannot raise the cost of damage and recovery themselves (Klijn and van der Most 2001: 2-6).

³³⁹ Publicising an indicative map is an 'assault strategy' the later Commission's communication experts would rather have avoided (int. ten Brinke 2005). The top-level public officers on the other side of the 'clay screen' would not normally have opted for an indicative map of the areas for controlled flooding but

shared the Vice-Minister's have an interest in a higher public profile for water policy. But the key officer of that team, ir Van der Hoek, saw a strategic need to come up with a map despite the undecided state of play. The timing was hurried as the window of opportunity might be limited. The Minister of Spatial Planning, Pronk, and the Vice-Minister of Water got on well personally. Pronk had a vision of environmental contours in spatial planning – red for built-up areas, green for nature, blue for water. To make sure they could claim space in their negotiations with VROM for water storage in the Fifth Spatial Planning document, the Public Works Department had to make a 'reservation' – without being too specific on which areas would be selected in the event (ints. former top RWS policy officer A. Van der Hoek, 2005, 2006). 'We didn't want to leave it with them – we wanted to keep control [*de regie erop houden*]. So we had to come up with a map ourselves'.

[340] 'Commissie kiest drie 'calamiteitenpolders''', *NRC* 29 May 2002).

[341] Experts like Wim Silva (RIZA), and Matthijs Kok (HKV Lijn in Water, formerly WL | Delft) and Richard Jorissen (DWW) were among the key people involved in this.

[342] The pathway would be through the Nears valley near Goch and the Oude Ijsseldal on the east side of the Rhine, after which the water would drain onto the Waal (Silva 2001; Klijn en van der Most 2001). The Germans fear a similar back door effect via Holland (NRW Environment Minister B. Höhn quoted in Werkgroep Hoogwater, *Hoogwatermagazin/Hochwassermagazin* 4, May 2002). Canalisation between 1955 and 1977 has meant the loss of 130 km^3 of space for the Upper Rhine, so that flood water reaches Holland faster in a steeper wave. Retention basins are put in place on the Upper Rhine for some years and in Nordrhein-Westphalia four locations have been organised as retention polder. In 1992 a 'Gesamtkonzept' was set up of eight repositioned dikes and three retention areas, Bylerward near Rees, Ilvericherbruch near Krefeld and Wortingerbruch near Monheim/Leverkusen, which would lower the river level at Lobith by 10 cm. (*Ministerium für Umwelt und Naturschütz, Landwirtschaft und Verbraucherschütz des Landes Nordrhein-Westfalen*, the Province of Gelderland, Public Works Department (ed..), 2002) In Germany, where the designated areas are populated rather more thinly than in Holland, and complete buy-out of citizens was envisaged, the Minister was reportedly unyielding: if people didn't like the areas she had selected, people could indicate which areas would be suitable for controlled flooding – the plan would go ahead. However the new CDU government of NRW is expected to return to hard structures (dikes) for flood protection.

[343] 'Laat de polder niet verzuipen', *De Volkskrant*, Wetenschap, 27 December 2003

[344] Presentation at 'Ruimtelijke bijdrage aan gevolgenbeperking', an expert meeting on flood impact mitigation, NIROV/Spatial Planning Department, The Hague, 10 October 2007. The consultants were not alone in their critical stance. When a controlled flood storage policy was proposed, there were worries within the Dienst Weg- en Waterbouw (civil engineering service), a technical branch of Rijkswaterstaat about the social acceptability of the new policy. They hired Enne de Boer, a sociologist consultant, to draft a report on the social impact of such a policy (De Boer 2003).

[345] Technische Adviescommissie Waterkeringen, draft advice to the Luteijn Commission, 13 September 2002 and eventual advice, 8 october 2002.

[346] Geert Willems, 'Querdamm en Kapitteldijk hoger', *De Gelderlander*, 15 November 2007.

Chapter 8

[347] RPS Landscape Management and Planning Consultants, Clouston, Didcot.

[348] Participants in the debate may have a quite different self-understanding – they may insist they aim for consensus rather than confict or hegemony. In analysing discourse, the analyst does not pass judgment on the possible motives of participants (Tennekes 2005).

[349] http://www.landaspirations.com/

[350] The discourse of flood management is one couched in military metaphors of 'defence' (likewise the Flood Defence Committees). I will follow British custom throughout the text.

[351] Appalling pollution in the Thames gave rise to the first European water policy (Newson) culminating in the 1951 Report of the Peppard Committee to improve water quality sufficiently for the salmon to return.

[352] http://www7.caret.cam.ac.uk/windsor_maid_intro.htm

[353] The pattern of main or non-main rivers follows no set rule. 'Enmaining' (legally reclassifying 'critical ordinary watercourses' as 'main river') must be accepted by the Regional Flood Defence Committee, and 'committees have sometimes refused applications for rivers whose flood defences are in poor condition or

absent' (Oxera/MAFF 2001: 14) 2001]. The upshot is that the (minor) Clapper Stream, another source of occcasional local flooding in the project area, cannot be handled by the Environment Agency, since the institution has no authority over it, it being non-main water (Venables 2000).

[354] 'The local authority appointees who sit on the RFDCs are bound to act as members of an EA committee, not as representatives of local authorities, although it is not clear that this distinction is always made in practice, and if it were, an element of local accountability that appears to exist *de facto* from current practice might be lost'. [2nd interim report 2001] The Drainage Boards, established in 1930 have permissive powers to 'enter land' and carry out works on non-main channels (Scrase and Sheate 2005). While flood-defence work on non-main rivers outside the areas covered by Internal Drainage Districts are the realm of Local Authority. National grant-aid supplemented the levies raised by catchment organisations, IDBs and local authorities until 2003. The Committees are formally part of the EA but have a larger mandate beyond that of either of its constituents.

[355] The Land Drainage Act of 1991 lays down the IDB's drainage mandate, while the Water Resources Act 1991 relates to the functions and powers of the EA and the flood-defence committees.

[356] Interviewees noted that the same held true for Railtrack, with whom the EA worked together to enable the jacking of an underpass under the railway embankment.

[357] Memorandum submitted by The Environment Agency (F21) to Select Agricultural Committee, House of Commons, Minutes of Evidence, 1998.

[358] 'many proposals (...) allowed residential densities as high as those proposals refused on density grounds (...) Limiting flood hazard potential, if at all important, was an unmentioned secondary concern'

[359] On the basis of Thames Water Authority's Section 24 (5) stipulating surveys to identify major land drainage and flooding problems in the region.

[360] '...a series of flood walls and embankments protecting these areas from overland flood flows. The Cookham floodwalls incorporate moveable flood gates with a drainage system that allows seepage to be pumped from sumps.' (MWEFAS Operating Procedures Public Document 2005, Environment Agency, South East Area, Thames Region, found on jubileeriver.com)

[361] New properties in Maidenhead, England therefore are raised to where the level of the door is above the 1947 flood limit.

[362] Maidenhead Civic Society, January 2006, www.maidenheadcivicsoc.org.uk/projects/York%20Stream.pdf

[363] '...as rivers keep on rising', *The Independent*, 9 February 1990.

[364] Cost estimates rose from £51mn (NRA 1989) and £83.5mn or £14,000 per protected house including to £43.75m for implementation and O&M for 65 years (EA, 1998), to £110 million. This was largely covered by an increase in the council tax (community charge) levy by 6.3% for the fiscal year 1999-2000, which brings in £62.5 mn. 'Danger alert along river as levels rise' (*Maidenhead Advertiser,* 22 January 1999.

[365] Middlesex University's submission to the 1998 Agricultural Select Committee notes that MAFF's scoring system had become even harder for new projects than the existing Project Appraisal Guidance Note (PAGN, 1995), requiring a cost-benefit ratio of 4 to 1 – to achieve a high priority in funding (Memorandum 22, Agricultural Select Committee 1998), or as Crichton (2005) has it: 'Benefits have to exceed costs by at least a factor of three, with a national target of a factor of five'.

[366] Maidenhead, Windsor and Eton Flood Alleviation Scheme - Environmental Statement Part I. National Rivers Authority, Thames Region).

[367] http://www.spelthorne.gov.uk/contrast/pdf_floodreportjan2003.pdf.

[368] in terms of e.g. Zygmunt Bauman 1999, the transgression of boundaries between the self and its extension, such as family and home.

[369] www.geraldeve.co.uk/Asp/templateManager/render/sections/13/render.aspx?siteID=1&subSID=&sID=13&documentID=14

[370] Although others claimed a shortfall on the market is expected. Locally, Berkshire can meet its targets but Buckinghamshire cannot.

[371] The CBA yields a *ratio*, rather than a difference, so it can make a difference whether an item appears as a negative cost or a positive benefit in the equation even though the value is the same (C.Green, pers comm 2001)

[372] Though still 'relatively slow' compared to some upland rivers (Johnson 2005).

[373] www.ecu.ox.ac.uk/sirch/casestud.htm.

[374] Larcombe (2005) notes that 'today the EA have a *duty* to dredge for navigational purposes, and the *power* to dredge for flood defence purposes.'

[375] 'With the high ground of Windsor Castle on one side and the M4 Motorway on the other it is difficult to see any other realistic alternative solutions.' (RPS 1993).

[376] "While risk reduction is central to the DEFRA/NAW policy and implicit in current decision-making practice, explicit assessment of risks has in the past tended to be limited to the appraisal of major decisions to invest in flood defense infrastructure (...) The contribution that a wide range of interventions, including land-use planning, control of runoff, flood storage, flood warning, insurance, improving flood resistance of property, and operation and maintenance of flood defenses, makes to flood risk management has only recently begun to be analyzed in a systematic way' (Hall *et al.* 2003: 226).

[377] According to Gardiner (1996), the 'executive Regional flood Defence Committees regard the 1-in-50-year standard of protection as a minimum'. Even the implementation of the 1: 65 standard leaves some questions. Should one protect for the highest or most frequent flood? While Lewin & Fryer started from a 'correct level' of flooding of 5 cm – which would mean only wet toes - Penning-Rowsell, Winchester and Bossman-Aggrey (1987) adopted a 40 cm standard.

[378] The Datchet, Wraysbury, Staines and Chertsey Floodplain Plan Study.

[379] Matthew Gorman, EA admits at-risk flood areas need more protection, *Windsor Reporter*, 21 April 2005.

[380] In their landmark book on planning Cullingworth and Nadin have noted that there are not many detailed cases of decision-making in Britain, because it is not a very transparent process, as opposed to many available US case studies. This seems to reflect the cultural differences in the *openness* of government (Cullingworth & Nadin 1997).

[381] 'Problems' S. 13, Memorandum 22 (F34), Select Agricultural Committee, 1998.

[382] I contacted the National Heritage in 2000, but their spokesman hardly remembers the incident.

[383] Eton College cited loss of land value because of land 'held with'. In this context, the NRA /EA formally had a strong hand in the light of the strong land drainage tradition in the UK. The institutionalisation of drainage boards in the Land Drainage Act of 1930 facilitates compulsory land purchase for flood schemes such as MWEFAS. The relevant Environmental Authority has powers to acquire the freehold of land for the purpose of enhancing land drainage schemes[383] As a consequence,

> 'We had a CPO [Compulsory Purchasing Order] under our land drainage powers, confirmed by MAFF. Eton issued a direct challenge. We didn't want to use the freehold so we offered an easement. The inspector's representative looked at it in April. In June the solicitors looked at it for legal challenge. The Minister sat on it until March 1995 – approval, CPO confirmed. On the last day of the inquiry, Eton filed a formal legal objection saying that the document was flawed. The EA said the easement was sufficient as it gives EA all the problems. A CPO extinguishes all third-party land rights. You don't know they're there 'till someone remembers. Our barrister said Eton couldn't do it, their barrister said they could. Because of this the rest of the CPOs were also on hold on all other land. The 3rd counsel said it was too complex, it wouldn't stand up in law; basically unworkable. In April 1996 Eton agreed to buy the land by CPO then we would resell the land.' (Interview EA, Reading).

[384] Note of Conference with Counsel, 19 September 1988.

[385] Another formal objector to a Compulsory Planning Order was the *Department of Transport*, which at the time was still separate from Agriculture and the Environment. The MWEFAS needed a diversion on the M4 motorway, which got in the way of its Transport Ministry's own M4 motorway widening project. This and other complaints from landowners and agencies led to intense consultations between the DETR, Berkshire and Buckinghamshire.

[386] Dorney Lake was the site for the BearingPoint Rowing World Cup 2005, the World Rowing Championships 2006 and has been selected for rowing and sprint canoeing in the Olympic Games 2012.

[387] 'Flooded with relief', *Quarrying Today*, Spring 2004, Issue 13. http://www.qpa.org/pdf/qtoday13.pdf

[388] Quoted in 'Trench threat to common ends', *Windsor, Slough and Eton Express* (WSEE), 31 March 1989.

[389] 'Given that run-off which contributes to floods could be described as pollution and is caused by the activities of individuals other than those that are at risk of flooding, the Human Rights Act may place a duty on government to protect the rights of those in the flood plain against the run-off from the property of those higher in the catchment.' [OXERA/MAFF 2001]

[390] 'Villagers are told: Keep up the fight', *Maidenhead Advertiser*, 5 May 1995.

[391] In 1999 Berkshire County was split into an Eastern and a Western authority. This has little impact on the implementation of the scheme, though.

392 It appears from the interviews that the Agency gained a reputation with some stakeholders for shoddy project management during the construction of the channel. Both Eton College (interview with the author) and local town dwellers complained about signs fallen down and not replaced and untidy handling of the site.

393 *Maidenhead Advertiser*, 9/6/1995.

394 'Flood channel will still go with the flow', *Maidenhead Advertiser*, 12 February 1999.

395 'Outline designs and budget costings were put together over the next few weeks and at the second meeting decisions were made to run with those alternatives which were viable both from an engineering point of view, and an expectation that a worthwhile saving in cost would be forthcoming. The precise number is difficult to define because some items overlapped with others and with the alternative designs upon which the tender was based, so we had to sort out the evaluation and costing of the Value Engineering proposals and separate it from the alternative tender. (...) The detailed designs were on-going during the run-up to the start of construction work on site in early August 1998 and continued thereafter. We had to be careful that the time involved in the design and approval of the larger changes did not compromise the start on site of those activities. Mike Campbell / George Pargeter, ´The Maidenhead, Windsor and Eton Flood Alleviation Scheme Contract 6 - River Thames To Mainline Railway. The Contractor's View´, Balfour Beatty Construction Linited, *Civil Engineering Division.*

396 House of Commons, Select Committee on Agriculture, Sixth Report.

397 British policy discourse makes an interesting distinction between *statutory* rules, institutionalising protection from threats and *permissive*, discretionary measures. While spending on flood protection is *permissive*, Local Authorities and the Environment Agency *may* choose to do it - protecting the birds is *statutory* (Venables 2000). The upshot is a lack of EA mandate for flood protection works.

398 Given infinite resources, my EA spokesman would buy people out, not evict them from the floodplain. He held up the Three Gorges project (China) as a bad example of social engineering.

399 It was officially opened by HRH Prince Andrew in July 2002, in honour of Queen Elizabeth's golden Jubilee. Among others, the project protects her Windsor castle and deer parks.

400 'Merit award swells Jubilee River trophies', *New Civil Engineer,* 19 September 2002, p. 39.

401 'Groups in flood role', *River views*, Environment Agency newsletter, September/October 2003. Huxley to Wraybsury, Wraysbury to Teddington and one dealing with Chertsey Bourne, which meets the Thames in the MWEFAS project area.

402 www.frags.org website.

403 There are two Thames FRAGs: Hurley to Wraysbury and Wraysbury to Teddington and one dealing with Chertsey Bourne, which meets the Thames in the Jubilee River's project area.

404 'Mechanisms of Flooding', Flood Risk Action Groups, Volume 1, 11.3.25, http://www.frags.org.uk/mech_vol1.htm
Subcontractor Arup also took flak for changing specifications of their role in the project in its work for MEWEFAS in 1997-1998, dropping claims of 'cost savings'. This had been observed by local residents and the Community Support Group South (CSGS), formed to coordinate residents' views to local Flood Risk Action Groups. claim claims flood levels downstream were increased 'by up to 125mm' as reported on thamesweb and later admitted by the Environment Agency, Channel Closure stokes Jubilee River row', *New Civil Engineer,* 6 May 2004, p. 12.

405 The burough comprises Ashford, Charlton, Halliford, Laleham, Littleton, Shepperton, Staines, Stanwell, Stanwell Moor and Sunbury.

406 *The Times,* 30 August 2004

407 Francis Batt, 'Fears over flood showdown', ICBerkshire, 3 June 2004.

408 Francis Batt, 'Flood, sweat and jeers', 13 August 2004, icBerkshire; Mark Hansford, 'Arup denies downplaying its role on Jubilee river', *New Civil Engineer International*, 30 September 2004.

409 JMP Consultants Ltd., Flood Analysis Report, Final 10-5032-B, 10-5042-A, 10-5047-A R.001 V3, Flood Analysis Report ww2.runnymede.gov.uk/home/latest/Flood_Analysis_Final%20V3.pdf

410 'Two-year-old flood relief channel already needs major repairs', *Ground Engineering*, 01 August 2004.

411 'Soft Engineering Comes up short', *New Civil Engineer International,* 1 October 2004.

412 ´Repaired Jubilee river flood defence still 10% under capacity', *New Civil Engineer +*, 21 September 2006.

413 *Windsor, Ascot and Maidenhead Observer*, 22 April 2005.

414 This progressive insight is reflected in the rather different answers to questions in the Commons asked in 2003 and 2006. When Parliamentary questions were posed by various regional Members on 15 January 2003 and 4 February 2003, Mr Morley (Minister of State for Climate Change and Environment) stated there were 'no effect on Medmenham and Marlow' and that a rerun of an updated hydrological model had been done which showed no significant effect.
When on 6 June 2006, Adam Afriyie MP for Windsor asked again about Jubilee River and MWEFAS as a whole
(http://www.publications.parliament.uk/pa/cm200506/cmhansrd/cm060626/text/60626w1189.htm) Ian Pearson admitted the channel was functioning below standard.
415 'EA sues designers of failed Jubilee River flood defence', *New Civil Engineer*+, 15 June 2006.
416 Michael Horsnell, 'Anger swells overthat flood river shifts damage', *The Times*, 30 August 2004
417 http://www.environment-
agency.gov.uk/commondata/acrobat/lowerthames_strategy_948936.pdf#search=%22MWEFAS%20trea
sury%20cost%20benefit%22
418 Mark Hansford, 'Flooding fears push Agency to seek Jubilee River extension', *New Civil Engineer,*
13 May 2004, p. 5.
419 'Repaired Jubilee river flood defence still 10% under capacity', *New Civil Engineer* +, 21 September 2006.
420 'Locals may pay GBP200 flood scheme', BBC News, 7 December 2006.
421 http://www.publications.parliament.uk/pa/cm200607/cmhansrd/cm070724/debtext/70724-
0008.htm
422 *Maidenhead Advertiser*, 5-5-1995.
423 Downstream Flooding - Residents remain angry, thamesweb, 16 January 2004. Parliamentary questions on 4 Feb 2003 also give examples of constituency correspondents frequently mentioning the word 'sacrifice'.
424 This can be seen as a new step in a more inclusive trajectory. After the 2000 floods, a 'Flooding. You can't prevent it. You can prepare for it' campaign was launched The year 2001 saw the publication of the Civil Engineers report, 'Learning to Live With Rivers', and in 2004 DEFRA issued a consultation document Making Space for Rivers424 which explicitly advocates stakeholder involvement, where. 'stakeholder' is defined as 'all those individuals and groups affected by flood and coastal erosion risks and/or able to influence the development of approaches to flood or coastal erosion risk management decision making' (Defra, 2004b: 2). It claims 'members of the community should have input both of their knowledge of the local characteristics of flooding and the community in terms of their preferences and priorities for flood' (Speller, 2005).
425 Apart from technical and policy documents and Flood Hazard Research Centre publications, to my knowledge so far only a Durham student wrote his Bachelor's thesis about it (Norton, 1994).
426 'The town at greatest risk of flooding, *The Times*, 3 December 2007.
427 For reasons of scope I will not discuss Actor Network Theory (Callon, Latour) which ascribes agency to inanimate objects such as rivers, 'actants'.

Chapter 9

428 A garrison state is 'a state organized to serve primarily its own need for military security' (Merriam Webster dictionary) http://www.merriam-webster.com/dictionary/garrison%20state
429 Bangladesh is currently again under emergency rule and relations with India still shaky.
430 This is not a necessary course of action. The US Corps of Engineers made a public apology for the New Orleans flood and admitted error of judgment and construction faults.
431 Not all frames are phrased as securitising moves, and not all are successful securitisations.
432 Christie, Frances and Hanlon, Joseph (2001), Mozambique and the Great Flood of 2000. James Currey Ltd.
433 http://www.luiss.it/shur/wp-content/uploads/2007/05/shurwp05-07.pdf
434 I owe this point to Luuk Knippenberg (Knippenberg, pers comm. 2005).
435 in part demilitarising its political sector, creating a 'protected democracy'.
436 In light of the (now more subdued) army presence Cizre (2000) calls Turkey a 'protected democracy'.
437 Also, the campaign to save the wild hamster (*creticus creticus, korenwolf*) for the Netherlands came at a

time neighbouring Germany experienced a wild hamster plague.

[438] http://www.sgir.org/archive/turin/uploads/Cebeci-cebeci-turin_paper.pdf

[439] As noted, the FAP project started out under securitised conditions (dictatorship) then after transition to multi-party democracy the project came to be discussed with ever widening groups of stakeholders.

[440] The final responsibility however was with the World Bank, which could in principle be held to account.

[441] But revealing this appears to have been a public taboo. The project Security Map for the Netherlands (VKN) would mercilessly reveal the actual levels, i.e. the differences in protection. Only after in 2004 a government-commissioned report (Bannink et al. 2004) decried the lack of knowledge and poor state of many dikes, the Vice Minister allowed the publication (declassification) of the Security map.

[442] Graeme Wearden (2007), Insurers say authorities partly to blame for flood damage, *Guardian,* August 20.

[443] Syria and Iraq worry about possible flooding or drought induced by upstream Turkish dams. In Britain, downstreamers blamed their suffering in 2003 on the protection of Windsor and Maidenhead. Limburg's downstream villagers likewise protested when they feared the increased risk effects of upstream flood works.

[445] quoted in Rob Berends, 'De illusie van zekerheid' , *De Gelderlander*, 29 January 2005.

[446] Douglas seeks to explain why society selects some risks over others as important, in spite of quite different expert assessments: 'understanding risk and danger is part of a way of making sense of the world, and keeping things in their proper place'. They help determine in- and outside, trusted and foreign elements. Douglas and Wildavsky (1982) maintain that in Western societies, belief in witchcraft may have died out, but blaming and claiming mechanisms are ever on the rise – we always look for a culprit and redress, so that there are few hazards left that are not politicised.
While the work of Beck and Giddens focuses on individual vulnerability and responsibility and Caplan (2000) sees a (neo)conservative school re-emphasising individual responsibility, Douglas sees people as socially embedded (they discuss with neighbours, families, etc) and, as Harries notes, protesting a collective threats against gives them opportunity for collective action. It may be ountereed that a community is not a coherent entity, speaking with one voice. It may therefore be questioned if, as Douglas claims, 'communities' seek blame and redress when something goes wrong. But the identification of a common enemy can enlist a winning coalition creating a (temporary) community identity for collective action (Harries and Burrows 2006). A counter-securitizing move can allow a local alliance to present a united front against the securitising move of a state actor.

[447] For example, Tewskesbury flooded in 2007 but is unlikely to be protected in future as a result of the points system.

[448] Lijphart (1967) and Lustick (1993) argue that even in divided societies, consociationalism can work: while societal groups ignore each other at day-to-day- level, their elites cooperate and coordinate at the top.

[449] According to John Scott (2000), pressure defies the hegemon from within the decision-making circles, while protest can only engage from outside.

[450] See also the 'Changing Landscape of European Liberty and Security (CHALLENGE)' project.

[451] This is not true for the Turkish and Ooij cases, but applies to the four other researched schemes.

[452] Just like the water in Cochabamba is still undrinkable and its supply frequently interrupted seven years after the successful resistance of water privatisation referred to in Ch. 4.

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Summary

Floods bring life and death, fertilisation and destruction. The destructive side instils primordial fears of chaos and destitution. Therefore, flood politics are not like normal politics – they are *security* issues. In turn, flood disasters are crises for society. The public outcry after flood events challenges a governmental body's legitimacy, which may be blamed for its unsatisfactory warning or flood protection system. A flood event legitimises extraordinary measures in which normal rules do not apply. A broad consensus on what is to be done and a broad mandate for doing it fast, whatever the price, can be expected.

River regulation infrastructure and flood response are supposed to prevent disastrous floods. Engineers create often innovative infrastructural designs and increasingly devise participatory processes to discuss their plans with affected stakeholders. Such projects always seem to get politicised. The present study argued that unease over security distribution is a recurring factor.

Analytical starting point for the study is the work of Buzan, Waever and de Wilde (1988), the 'Copenhagen School', which has given a strong impulse to the security debate. They have shown that threats to security are not a reality 'out there'; a threat is what you make it. One issue can become elevated to security status ('securitised'), legitimising extraordinary measures, while another remains unaddressed. Generally, it is state governments who can declare war and emergency and mobilise the army, police and emergency services. But a solitary focus on the state underestimates other actors' capacity to securitise or counter-securitise issues.

A move for 'securitisation' is a move for closure, excluding certain actors, alternatives, debates for the sake of emergency action. As the post-flood time window for devising new projects run out, normal rules, criteria and accountability structures apply. Flood projects bring contest over the distribution of risk, who should be protected by whom at what cost. Security and risk are strategically used constructs, used for political gain. The study seeks to bring a coherent theorisation and conceptualisation of (the construction of) security and risk in water management.

The study focuses on flood security. Far from dodging responsibility for risk management, flood managers appear quite keen to take on the responsibility, using the language of fear and threat to generate demand for their protection services, while citizens are willing to forgo their political rights and place their fate in the hands of these suppliers. The current vogue for 'risk management' only intensifies control of people through risk profiles, statistics and subtle incentives. To several liberal observers this opens up vistas of 'surveillance states' with worrying effects for civil liberties. The study will however argue that you should not throw the baby called Security out with the bathwater. Especially in the disaster sector, a 'desecuritised' mode of governance is hard to imagine.

The study thus analyses and organises how states oscillate between security logic ('logic of war') and non-security logic ('logic of peace') in flood security governance. The way floods are managed and politicised are a reflection of how society is organised. Therefore, one should look at flood protection schemes within their social, political, economic context. The study looks at six planned river interventions in five countries, analyses the role of security and risk discourse in conflict and politicisation over river interventions. It finds it is not only state representatives, but also opponents who can effectively 'speak security' and play the 'politics of unease'.

The introductory chapter presents the analytical and methodological building blocks. After the Copenhagen School, the study takes a constructivist perspective of security and crisis. It sees security as a way of framing a problem. Its perspective of regimes is inspired by Hilhorst's (2003) domains of knowledge and action in disaster response, which identifies three domains of

governance, expertise and local response. An adequate flood response would require these domains to be well—coordinated among themselves. A securitising move seeks to forge a consensus, but this cannot be relied on to work.

The first empirical part of the dissertation consists of two case Middle East studies of river development. While the hydro-politics in the Nile and Euphrates-Tigris have often been described, the role of their current projects has not.

Chapter 2 introduces Egypt's Toshka Project. Now that it has closed off the Nile with the Aswan dam, Egypt treats floods as an opportunity to create a 'new civilisation' in the Southern Desert to create living space for millions of Egyptians and increase food security by 'greening the desert'. As Egypt is a highly controlling state and hardly anyone lives in the area to be colonised, one would not expect conflict to arise. However a national cash crisis triggered questions in Egyptian Parliament over the good sense of the mammoth undertaking.

The chapter ponders the role of Toshka in hegemonic basin politics. Ethiopia fears that Toshka creates facts on the ground that will be advantageous in the inevitable renegotiation of Nile agreements between the river's riparians. Other Nile states seek a better allocation deal but run up against Egypt appears willing to reconsider the status quo, but makes sure its power position is maintained.

Chapter 3 sketches the conflict over the Ilısu Dam. Turkey, a former empire that has learned to be a republic, has embarked on a series of dams and irrigation systems known since 1977 as the GAP project. After a series of dams on the Euphrates, the large Ilısu hydro-electric dam was the first major scheme on the Tigris. Downstream protests, fearing Turkish control of the river, did not change Turkey's mind, but an international NGO coalition successfully halted the dam. Their main complaint: the dam would flood dozens of Kurdish villages including the culturally important town of Hasankeyf. The campaign soon escalated into 'water wars' language. In 2006 the dam project was restarted, but the struggle continues.

Chapter 4 compares the cases of upstream Turkey and downstream Egypt in light of three global water narratives: water wars, water peace and hegemonic struggle. The two states have controlled the floods but are struggling to control the countryside. Both are hegemonic actors in their basin, both states have absolute command within their territory, but neither can afford to ignore the international community. This induces both states to liberalise their water sectors and carry through social reforms and entering into co-operative regimes with their riparian neighbours. The analysis questions the currently hegemonic 'water peace' analysis which suggests the water issue has become 'desecuritised' in both basins. It concludes that security mode lives side by side with non-security tendencies, while the negative effects of both securitised and desecuritised modes continue to be fought in another type of 'water war': the struggle against the 'enclosure' of global resources. An Appendix applies the three narratives to basin regime formation, which brings a more multifaceted story of conflict and co-operation.

The second part of the study looks at four flood protection schemes in 'wet' river basins.

Chapter 5 traces the rise and fall of the Flood Action Plan-20 in Tangail, Bangladesh. After the destructive floods of 1987 and 1988, the international community decided to fund a Flood Action Plan, of which the Dutch- and German-funded compartmentalisation project was to become the flagship. The project intended to introduce a system for subdividing polders into compartments, each with its own water management committee on the east bank of the Jamuna river. The project team was soon confronted by angry masses. This raised questions in the donors' parliaments, review missions and a review of the project. The analysis shows that the project was not as bad as it has been depicted by the NGO coalition, and how its mission was adapted several times. It was discontinued in 2000 when sea-level rise appeared the more pressing problem, but the compartmentalisation concept appears to get a second life in the Southeast of the country.

Chapters 6 and 7 look at two river management interventions in the Netherlands. Famous for its 'fight against the water', the country's security preparedness was flagging in the 1980s after protesters decried the loss of natural and cultural values due to dike raising. The Maaswerken, in the southern province of Limburg, sought to combine the regeneration of the river Meuse with flood protection (Chapter 6). Because the Border Meuse is a gravel river, the sale of aggregates was expected to pay for the river restoration works. Initiated in the mid-eighties, the project languished for years but resurfaced when in 1993 and 1995 two high-water events shook the country. Post-flood, under 'securitised' rules, everything was possible, but when the security window closed a few years later, the project ran into different kinds of trouble because decisions taken in securitised mode were not acceptable in non-securitised mode. Especially anti-trust regulation and conflict over polluted aggregates led to lawsuits and parliamentary questions. Hoped-for 'security' funding did not materialise, while unease with aggregate excavation, even for a 'green security' project, persisted.

Meanwhile on the Rhine, a project called Space for the River was initiated to widen the river to better accommodate high river discharges (Chapter 7). However worrying climate change scenarios impelled the Public Works department to consider an emergency plan for flood storage in 'calamity polders'. The Vice-Minister for Water Management in 2000 decided she badly needed this plan to boost her political profile. The designated areas responded badly to the news and commissioned counter-expertise. In response, the department instated an advisory Commission to develop a convincing rationale for 'controlled flooding'. Its report however failed to convince polder dwellers, who mounted an all-out attack, leveraging counter-expertise and successfully targeting parliamentary parties. The Vice-Minister had to concede defeat and shelved the plan.

Chapter 8 focuses on Britain, where flood control has not been a government concern, so that people have had to rely on self-help and market mechanisms (insurance). But in the 1980s the National Rivers Authority (now the Environment Agency) looked to protect the town of Maidenhead on the Thames and devised a pilot project – a 'green' flood relief channel - for an integrated river management approach on the Thames. The Agency's application for planning permission generated much protest from villagers, counties and Eton College, and the project was 'called' in by the Environment Minister in the early 1990s. However, the Agency was willing to accommodate many objections and launched an information campaign. Moreover, the floods of 1998 and 2000 increased the support base for river engineering works. In 2002 the channel was inaugurated and won many prizes, but in 2003 the channel's banks failed and downstreamers accused the EA of flooding them so as to save others.

Chapter 9 pulls together the lessons from all six case studies. It engages with those strands in decision-making literature, such as Punctuated Equilibrium Theory, that predict crises like floods and flood projects to open windows of opportunities to change the status quo in the 'policy regime'. Only in the Netherlands, where floods are historically securitized, a near-flood event opened a window for securitization. Project initiators indeed make 'securitising moves' to legitimise their project, because the 'window of opportunity' for action is very short, but as the memory of the flood fades, so does the support base for engineering works. The flood issue may even disappear from the agenda as other concerns overtake it. Flood projects also bring opportunities to promote transformative projects that would otherwise not be politically feasible. But they are also foci for opponents against unwanted control.

The Chapter again relies on three narratives, 'war with water', 'peace with water' and the local (anti-hegemony) view. Again, both securitized and desecuritised projects create conflicts with stakeholders who feel disadvantaged, put at risk or even abandoned as a result of the intervention. These however are not necessarily the most vulnerable groups, but those with good organizational and political skills. This should not detract from the need to protect marginalized groups instead of abandoning them to self-help.

In closing, Chapter 10 feeds these findings from the case studies back to the security studies literature, arguing that it is not only authorities who can 'speak security' but also affected citizens, NGOs and enterprises. Despite co-opting opponents into the decision-making regime, states will continue to find themselves confronted by countersecuritising moves and stories, polarising the debate. While the analysis perceives a welcome trend towards 'desecuritisation' of flood policies, it argues that calling for desecuritisation alone does not do justice to people's fears and states have a role in attending to those. Rather, a judicious mix of security and non-security elements in the 'integrated security chain' approach may indicate the way forward.

Samenvatting: Hoog spel om hoog water

Overstromingen brengen vruchtbaarheid maar ook vernietiging met zich mee. De destructieve kant van hoog water brengt vrees teweeg voor chaos en armoede. Overstromingspolitiek is daarom geen gewone politiek – het is veiligheidspolitiek. Overstromingen zijn ook crisismomenten voor het maatschappelijk bestel. Publieke verontwaardiging na een overstroming plaatst vraagtekens bij de legitimiteit van een overheidinstantie, die de schuld kan krijgen van ineffectieve waarschuwing of hoogwaterbescherming. Een overstroming legitimeert buitengewone maatregelen waarin normale regels niet opgaan. Er zal brede overeenstemming zijn over wat gedaan moet worden en een mandaat om dat snel te realiseren, ongeacht de kosten.

Rivierwerken en overstromingsbeleid beogen overstromingsrampen te voorkomen. Civiel ingenieus ontwerpen vaak innovatieve kunstwerken en in toenemende mate ook participatieprocessen om hun plan met de betrokkenen te bespreken. Niettemin lijkt het onvermijdelijk dat zulke projecten gepolitiseerd raken. In deze studie stel ik dat de verdeling van veiligheid daarbij steeds van belang is.

Het startpunt voor analyse in deze studie is het werk van Buzan, Waever and de Wilde (1988), exponenten van de zogeheten 'Kopenhagen School', die een stevige impuls heeft gegeven aan het veiligheidsdebat. Zij laten zien dat een bedreiging geen reële fenomenen is maar geconstrueerd zijn. Het ene thema kan onderwerp van veiligheidspolitiek worden (ge-*securitised, 'verveiligd'*), en daarmee buitengewone maatregelen legitimeren, terwijl het ander geen passeert zonder discussie. Omdat het doorgaans overheden zijn die de oorlog kunnen verklaren en noodtoestand uitroepen en politie, hulpdiensten leger kunnen inzetten. Maar als je de blik alleen richt op het vermogen van de staat om te *verveiligen* onderschat je het vermogen tot tegen-*securitisation* van andere actoren.

Een poging tot *verveiliging* beoogt het debat kort te sluiten, waardoor bepaalde actoren en opties om de noodsituatie het hoofd te bieden. Hoogwaterprojecten brengen echter meer veiligheid voor sommigen dan voor anderen. Naarmate de tijd om nieuwe projecten op te tuigen begint af te lopen, gelden weer gewone regels, voorwaarden en verantwoordingsstructuren. Hoogwaterprojecten brengen dan politieke strijd over de verdeling van risico's, over wie door wie en tegen welke kosten moeten worden beschermd. Veiligheid en risico zijn strategisch gebruikte concepten die voor politiek gewin kunnen worden ingezet. Dit onderzoek probeert tot een samenhangende theorie en conceptualisering te komen van veiligheid en risico(-constructies) in het waterbeheer.

De studie gaat over de politiek van hoogwaterveiligheid. Riviermanagers gaan niet (zoals sommigen voorspellen) de verantwoordelijkheid voor risicobeheer uit de weg, maar blijken er juist op gebrand de verantwoording op zich te nemen, waarbij ze de taal van angst en bedreiging spreken om de vraag voor hun beschermingsdiensten aan te zwengelen, terwijl burgers bereid blijken hun politieke rechten op te schorten en hun lot in handen te leggen van veiligheidsaanbieders. Het momenteel zo populaire 'risicomanagement' verstevigt de greep op mensen met risicoprofielen, statistieken en subtiele prikkels. Verschillende liberale commentatoren zien hierin de voorbode van een Big Brother-staat met verontrustende consequenties voor burgerlijke vrijheden. Ondanks deze zorg beargumenteer ik in deze studie dat je het kind niet met het badwater moet weggooien. Met name in de rampensector is een *ontveiligde* vorm van governance moeilijk te realiseren.

In deze dissertatie analyseer en conceptualiseer dus de manier waarop staten tussen crisisdenken (staat van beleg, noodbeleid) en kust-veiligdenkrn (normaal beleid) in reactie op hoogwaterdreigingen. De manier waarop overstromingen worden beheerst is een weerslag van de manier waarop de maatschappij in elkaar zit. Daarom dient hoogwaterinfrastructuur in een sociale, politieke en, economische context te worden beschouwd. De studie beschouwt zes

gelande interventies in de rivier in vijf landen, analyseert de rol van veiligheids- en risicodiscours in conflict and politisering van rivierprojecten. Niet alleen overheidsvertegenwoordiger maar ook tegenstanders die doeltreffend de taal van veiligheid kunnen spreken en politiek van de angst te bedrijven.

Het inleidende hoofdstuk presenteert de conceptuele en methodologische bouwstenen. In navolging van de Kopenhagen School, gaat mijn onderzoek uit van een constructivistische benadering van veiligheid en crisis. Het beschouwt veiligheid als een manier om een probleem in te kaderen (*framen*). De opvatting van 'regimes' is hier geïnspireerd door Hilhorst's (2003) drie domeinen van kennis en actie bij rampenbeleid: bestuur, expertise en locale respons. Om adequaat op een ramp in te springen dienen deze domeinen onderling goed gecoördineerd te zijn. Een verveiligingsinitiatief (*securitising move*) beoogt consensus te smeden, maar de initieftiefnemer kan er niet vanuit gaan die poging ook succesvol zal zijn.

Het eerste empirische gedeelte van de dissertatie betreft twee gevalsstudies van rivierontwikkeling in het Midden-Oosten. Terwijl de waterpolitiek in de Nijl en Eufraat-Tigris al vaak zijn beschreven, geldt dit niet voor de huidige projecten.

Hoofdstuk twee geeft een inleiding op het Toshka-project in Egypte. Nu de hoge Aswandam de Nijl heeft afgesloten, beschouwt Egypte hoog water als kans om een 'nieuwe beschaving' in de Zuidwestelijke Woestijn. Om daarmee voor miljoenen Egyptenaren leefruimte te creëren voor miljoenen Egyptenaren en voedselzekerheid de 'woestijn groen te maken'. Aangezien de Egyptische staat de politiek in zijn greep heeft en nauwelijks iemand in het te koloniseren gebied woont, is conflict veel minder waarschijnlijk. Toen de bodem van de Egyptische schatkist echter in zicht kwam stelden Egyptische Parlementsleden vragen over de wijsheid van een dergelijke mammoetonderneming.

Dit hoofdstuk beschouwt de rol van Toshka in hegemoniale stroomgebiedpolitiek. Ethiopië vreest dat Egypte het land voor voldongen feiten stelt die goed van pas zullen komen bij toekomstige onderhandelingen tussen de oeverburen vaan de Nijl. Andere Nijlstaten wensen een betere verdeelsleutel. Egypte lijkt bereid de *status quo* opnieuw te bezien zolang haar machtspositie behouden blijft.

Hoofdstuk drie beschrijft het conflict over de Ilısudam. Turkije, voorheen een keizerrijk, heft moeten leren zich al een republiek te gedragen. Het is een reeks dammen en irrigatiesystemen, sinds 1977 onder de gezamenlijke noemer GAP. Nu de dammen aan de Eufraat er staan, is de waterkrachtcentrale bij Ilısu, het eerste grote project aan de Tigris. De benedenstroomse Irakezen vrezen dat Turkije zijn greep op de rivier wil vergroten. Hun protest liet de Turken koud, maar de een internationale coalitie van ngo's wist de dam wel met succes tegen te houden. Hun belangrijkste bezwaar gold de overstroming van tientallen Koerdische nederzettingen, waaronder het historisch belangrijke stadje Hasankeyf. De campagne liep uit op ongegronde waarschuwingen tegen een dreigende wateroorlog. In 2006 werd het damproject opnieuw gestart, maar de tegenstand blijft.

Het vierde hoofdstuk vergelijkt het waterveiligheidsbeleid van het bovenstrooms Turkije met die van het benedenstroomse Egypte, tegen het licht van drie mondiale watervertogen: wateroorlog, watervrede en hegemoniale strijd. De twee staten hebben de rivier onder controle maar hebben meer moeite het platteland in bedwang te houden. Beide mogendheden zijn hegemoniale actoren in hun stroomgebied, beide hebben de absolute zeggenschap binnen hun territorium, maar geen van beiden kunnen het veroorloven zich doof te houden voor de internationale gemeenschap. Dit brengt beide staten ertoe hun watersector te liberaliseren en sociale hervormingen door te voeren en samenwerkingsregimes te initiëren met hun oeverburen. De analyse leidt tot vraagtekens bij het momenteel heersende vertoog van 'watervrede', dat de indruk wekt dat in beide stroomgebieden het waterthema *ontveiligd* is, dat wil zeggen, geen thema van conflict. Eerder kan gesteld worden dat crisis- en normale modus gelijk optrekken, terwijl de negatieve effecten van *ontveiliging* een ander soort wateroorlog doen ontbranden: een wereldwijde

strijd van mensenrechten- en milieuorganisaties tegen de toe-eigening van waterbronnen, hetzij door de staat, hetzij door de markt. Een aanhangsel past deze verhaallijnen toe op regimevorming op stroomgebiedniveau, hetgeen een rijker geschakeerd begrip van samenwerking en conflict oplevert.

Het tweede deel van deze studie bekijkt vier hoogwaterplannen in 'natte' stroomgebieden. Hoofdstuk vijf gaat de opkomst en ondergang van Flood Action Plan-20 in Tangail (Bangladesh). Na de verwoestende overstromingen van 1987 en 1988 besloot de internationale gemeenschap tot een veelomvattend Flood Action Plan, waarvan het door de Nederlanders en Duitsers gefinancierde compartimenteringproject de vaandeldrager zou worden. Dit project beoogde een systeem waarbij polders worden onderverdeeld in compartimenten net elk hun eigen 'waterschap' aan de oostoever van de Jamunarivier. Het projectteam zag zich spoedig gesteld tegen boze, veelal vrouwlijke demonstranten. Dit leidde tot debat onder parlementsleden in de donorlanden en zond evaluatiemissies.

Hoofdstukken zes en zeven beschouwen twee ingrepen in Nederlandse rivieren. Nederland is weliswaar beroemd om de 'strijd tegen het water', maar had de paraatheid voor overstromingsgevaar in de jaren tachtig minder aandacht gegeven als gevolg van milieuactivisme. De Maaswerken in Limburg beoogden de Grensmaas een nieuwe natuurimpuls te geven in combinatie met bescherming tegen hoogwater (hoofdstuk zes). Omdat de Grensmaas een grindrivier is, werd aangenomen dat het project kostenneutraal kon worden uitgevoerd, gefinancierd uit opbrengst van grondstoffenverkoop. Het plan dateert al van medio jaren tachtig, maar bleef jarenlang op de plank liggen tot de hoogwaters van 1993 en 1995 het land deden opschrikken. Meteen na het hoogwater leek alles mogelijk, maar toen een paar jaar later het momentum verslapte, raakte het project in de moeilijkheden: beslissingen die vlak na een noodsituatie gelegitimeerd leken, stuitten op weerstand onder 'normale' omstandigheden. Met name de aanbesteding en de verwerking van vervuild rivierslib leidde tot rechtszaken en Kamervragen. De overheid weigerde de noodfondsen toe te kennen waar op de provincie Limburg op rekende. Tenslotte bleef onder de burgerij de onvrede met grootschalige ontgrondingen voortduren.

Intussen werd aan de Rijn het project Ruimte voor de River opgestart om hoogwater beter te kunnen accommoderen (hoofdstuk zeven). Zorgelijke klimaatscenario's brachten Rijkswaterstaat er echter toe noodoverloopgebieden aan te wijzen. De staatssecretaris besloot in 2000 dat ze dit plan dringend nodig had om imago van haar beleidsveld, het hoogwaterbeheer, op te krikken. De aangewezen gebieden reageerden negatief op het nieuws en lieten tegenonderzoek doen. Het ministerie reageerde daarop met de instelling van een adviescommissie om een overtuigende onderbouwing voor noodoverloop en keuze van de meest geschikte calamiteitenpolders'. De Commissie-Luteijn wist de polderbewoners niet te overtuigen. Zij gingen frontaal in de aanval, zette tegenonderzoek in en richtte zijn pijlen op de Kamerfracties. De staatssecretaris zag zich genoopt de strijd op te geven en legde het noodoverloopplan in de ijskast.

Hoofdstuk acht richt zich op Engeland, waar hoogwaterbeleid lang geen overheidstaak is geweest; burgers moesten maar roeien met de riemen die ze hadden, dan wel op de markt (verzekeringen) vertrouwen. In de jaren tachtig probeerde de National Rivers Authority (de huidige Environment Agency) het stadje Maidenhead aan the Theems te beschermen en bedacht een proefproject – een 'groene' nevengeul om vandaaruit tot een integraal waterbeheersplan voor de Theems te komen. Voor dit project diende de Agency zelf toestemming voor een ingreep in het 'Groene Hart' te krijgen, en werd daarmee mikpunt van tegenstand van graafschappen, gemeenten en het befaamde Eton College. Dit leidde uiteindelijk begin jaren '90 tot hoorzittingen. De Agency bleek bereid vele bezwaren te accommoderen en startte een voorlichtingscampagne. Dankzij de overstromingen van 1998 en 2000 nam het draagvlak voor ingrepen toe. De nevengeul werd in 2002 ingehuldigd als het Jubilee Channel en won vele prijzen, maar toen in 2003 de natuurlijke oevers afbrokkelden en benedenstrooms huizen waterschade

ondervonden, beschuldigden de benedenstroomse bewoners de EA onder water te hebben gezet om anderen te beschermen.

Hoofdstuk negen trekt lering uit de zes gevalsstudies. Het hoofdstuk past stromingen uit de besluitvormingsliteratuur toe, met name Punctuated Equilibrium Theory, die voorspelt dat zowel overstromingen als hoogwaterprojecten kansen bieden om het 'beleidsregime' te veranderen. Alleen in Nederland, waar overstromingen van oudsher zijn *verveiligd*, schiep een bijna-overstroming een kans om noodbeleid te voeren. Maar in alle gevallen probeerden voorstanders van rivierinterventies hun project met *verveiligingsdiscours* te legitimeren, omdat de ruimte om actie te ondernemen erg kort is. Naarmate de herinnering aan de overstroming vervaagt, neemt ook de steun voor technische ingrepen af. Het hele hoogwaterthema kan van de agenda verdwijnen naarmate andere problemen belangrijker worden geacht. Hoogwaterprojecten bieden tevens de mogelijkheid economische of natuurontwikkelingsprojecten aan te zwengelen die anders politiek niet haalbaar zouden zijn. Naar zulke projecten zijn tevens mikpunt van verzet tegen ongewenste controle.

Dit hoofdstuk mikt wederom op deze vertogen 'oorlog met water', 'vrede met water' en 'strijd over risico'. Wederom gesecuritisede en gedesecuritisede projecten conflicten met belanghebbenden die zich benadeeld voelen, in gevaar gebracht of zelfs verlaten door de ingreep.

Dit zijn niet per se de meest kwetsbare groepen, maar goed georganiseerde groepen die weten hoe je de politiek moet benaderen om je zin te krijgen. Dat doet niet af aan de noodzaak zwakkere groepen te beschermen tegen extreme rampen in plaats van ze aan hun lot over te laten.

Hoofdstuk tien tenslotte verbindt de bevindingen uit de gevalsstudies met de literatuur over veiligheidsstudies. Het stelt dat niet alleen autoriteiten veiligheidsdiscours bezigen maar ook betroffen burgers, ngo's en bedrijven. Ook al proberen ze nogal eens tegenstanders in het besluitvormingsregime in te lijven blijven staten zich tegenover countersecuritising moves gesteld zien waardoor het debat op scherp wordt gesteld. Hoewel ik een welkome tendens tot '*desecuritisation*' ('ontveiliging') van hoogwaterbeleid signaleer, stel ik dat *desecuritisation* zowel geen recht doet aan de angst van mensen voor bedreigingen die hun incasseringsvermogens te boven gaan en dat zij er op rekenen dat de staat een rol speelt bij de respons daarop. Een afgewogen combinatie van veiligheidsbeleid en normale elementen van besluitvorming in de 'integrale veiligheidsketen'-benadering lijkt daarbij perspectief te bieden.

Author Biography

Jeroen Frank Warner (1966) was born in Noordwijk by the sea. He took his MSc in International Relations. His present PhD can be seen as an elaboration of his MSc, 'The politics of diversion. Bridging Troubled Waters in the Middle East', and subsequent Dutch-language publications for *Transaktie* and *Vrede & veiligheid* in the late 1990s.

In 1998 he won a research scholarship from Middlesex University, which led to studies of Bangladesh, Holland (Maas) and England. He interrupted his research work jumping at the chance to gain practical experience as research co-ordinator with the Irrigation and Water Engineering group at Wageningen University, which involved supervising Msc and PhD studies and co-organising workshops in four continents, including a seminar at the 4th World Water Forum in Kyoto. The programme yielded two books, one, *Conflictos y Participación* co-edited with Alejandra Moreyra in 2004, and the other, *Multi-Stakeholder Platforms for Integrated Water Management* published with Ashgate in 2007, as well as articles in peer reviewed journals.

In 2005, Wageningen colleague Dik Roth and Jeroen Warner won a research grant from Wageningen University's 'Boundaries of Space' programme, enabling the study of the Ooij polder. The study was joined by Madelinde Winnubst, who subsequently introduced Jeroen to the centre for Sustainable Management of Resources, at which he is currently employed as a senior researcher working on the Joint Planning Approach to river management

Jeroen has a parallel life as a local radio presenter, musician, composer and writer for *Pianowereld* magazine.