

Environmental Governance in the Mekong

*Hydropower Site Selection Processes in the
Se San and Sre Pok Basins*

Joakim Öjendal, Vikrom Mathur and Mak Sithirith



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Abbreviations

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BOOT	Build-Own-Operate-Transfer
BOT	Build-Own-Transfer
EIA	Environmental Impact Assessment
EVN	Electricity Vietnam
GMS	Greater Mekong Sub-region
GWh	gigawatt hour
IFI	International Financing Institution
IMC	Interim Mekong Committee
LMB	Lower Mekong Basin
MARD	Ministry of Agriculture and Rural Development
MC	Mekong Committee
MOSTE	Ministry of Science, Technology and Environment
MPI	Ministry of Planning and Investment
MRC	Mekong River Commission
MRCS	Mekong River Commission Secretariat
MREG	Mekong Regional Environmental Governance
MW	megawatt
NGO	Non-Governmental Organisation
NHP	National Hydropower Plan (Vietnam)
NMC	National Mekong Committee
REPSI	Resource Policy Support Initiative
SEA	Strategic Environmental Assessment
SEI	Stockholm Environment Institute
SKSSNT	Se Kong, Se San, Nam Theun River Basins
TVA	Tennessee Valley Authority
TWh	terawatt hour
WRI	World Resources Institute

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Executive Summary

This report aims to highlight regional environmental governance in the Lower Mekong Basin. The emphasis on regional governance is not only motivated by the shared and interdependent natural resources and threat of transboundary impacts within the Basin, but also by growing economic interdependence, increasing population density and political interactions within and between the countries. The study has chosen hydropower as it represents a key sector in terms of environmental protection.

Hydropower projects on the Mekong River and its tributaries have been viewed as one of the primary engines of economic growth for the countries of the Lower Mekong Basin: Cambodia, Lao PDR, Thailand, and Vietnam. Yet this is occurring against a backdrop of prevailing poverty, widespread dependence on natural resources and degenerating ecosystems.

Recent experience shows a range of adverse social and environmental impacts from already completed hydropower projects, both directly (i.e. from the project activities) and indirectly (from economic activity or demographic change induced by the projects). This experience has led a variety of civil society groups to oppose the construction of infrastructure projects under current procedures.

To address the issue of environmental governance, we conducted an empirical review using a ‘process tracing method’. Through this approach we followed the process of hydropower planning in an international tributary to the Mekong River, the Se San/Sre Pok sub-basins, where major hydropower development plans are currently being developed. Our research approach combined secondary sources with primary data from interviewing the people involved in decision-making on Mekong issues.

Our research questions were:

- What are the historical patterns of hydropower site selection in the Lower Mekong Basin?
- What institutions and actors attempt to exercise what kind of governance for environmental purposes, and with what mandate?
- What have been the decisive factors for the process of hydropower site selection in the Se San and Sre Pok Basins?
- How does the social and ecological situation in the concerned areas affect the governance process?

Our theoretical approach takes as its point of departure the debate on ‘environmental regimes’ and discusses whether emerging cooperation on environmental issues in the Lower Mekong Basin represents such a regime. Indeed, reading policy statements, the work on Mekong governance seems to be evolving towards a higher level of cooperation, and towards a more solidly based institutional platform for securing this cooperation. Establishing regimes of this sort in an international basin is, however, an utterly complex undertaking that requires both time and trust.

Empirically, the study explores four different fields in as many chapters. Chapter 3 is an historical review, looking for patterns of regional environmental governance in relation to hydropower in relation to the overall Lower Mekong Basin, and ends with an assessment of the current status of environmental governance. Chapter 4 disentangles the various actors’ roles and responsibilities: a certain weight is placed on the role of the Mekong River Commission (MRC) – given its regional mandate and high environmental ambition – but also the Asian Development Bank (ADB), national governments and their institutions, bilateral donors, and international consultants are scrutinised as to their role in this process. Chapter 5, the key empirical chapter,

describes and analyses the process of hydropower planning for the Se San/Sre Pok Basins from the early 1960s to today. An explicit attempt is made to follow the twists and turns of this process, and point out its critical junctures. It concludes in an assessment of this process from a governance point of view. Chapter 6, finally, contrasts the various actors' policy ambitions with the empirical situation seen from a local perspective. In doing so, it displays wide gaps between what may appear as a comprehensive social and environmental approach on policy level, and the difficulties of respecting and including local perspectives.

The study reaches a wide range of conclusions: it argues that the regional approach to environmental governance really is unavoidable, since many livelihood systems operate with small margins utilising resources faced with crossboundary concerns. MRC is the only institution with the Lower Mekong Basin governments as members and the only one with a regional mandate. The Agreement should be treated as a joint policy declaration, going beyond its obvious legal implications. MRC's new 'programme approach' is promising, if its value can be conveyed to, and convince, national decision-making fora. It should also be moving forward towards a proactive role in terms of conflict prevention. The study turns out to be fairly critical of hydropower interventions, given the standards the major actors claim to uphold, but rarely seem to respect in practice. If these standards were respected, it is questionable whether it would be possible to build more major hydropower stations.

Currently, there seems, however, to be a break with former practices, and 'new' standards vis-à-vis environmental governance seem to be emerging. However, there are major interests vested in large-scale hydropower expansion, which may not be impressed by the new standards as pioneered by the World Commission on Dams (WCD) and subsequently adopted by MRC. The new round of hydropower planning/construction in the Se San/Sre Pok Basins presents an opportunity to view how genuine the new approach really is.

The study concludes by outlining the steps needed for further developing a future 'resource regime' based on ideas of environmental governance – the development of which is deemed as the best available long term solution to problems of regional environmental governance in the Mekong region – and, in a normative sense, re-inserts the findings of this study into the broader development debate on resource management.

1 Introduction to the Study of Environmental Governance in the Lower Mekong Basin

...establishing a basic measure of trust among actors in a conflict ridden environment is time-consuming and costly, but launching a sustainable mechanism for consensus building requires no less.

Wolfgang Reinicke & Francis Deng, WCD, 2000:315

1.1 Introduction

The Lower Mekong Basin (Lower Mekong Basin)¹ includes the countries of Cambodia, Lao PDR, Thailand, and Vietnam. Covering a land area of 1.3 million km², its population is predicted to reach 85 million by 2005, growing by an average of 1.3 percent per year. The Lower Mekong Basin contains very high levels of geographic, cultural, economic, and political diversity. Yet, in many ways, it is an integrated economic subregion and is becoming increasingly so, both because of shared natural resources, primarily the Mekong River, and the growing economic and demographic interaction within the region. As a result, the future prospects of the different countries will increasingly depend on each other (ADB, 2000; UNDP, 2000).

On the one hand, the growth of trade and investment flows, and the accelerating development of energy resources has led to the characterisation of the entire region as the new frontier of Asian economic growth (Asian Development Outlook, 2000b). On the other, the incidence of poverty remains unacceptably high in the entire region – close to 40 percent in Cambodia, Lao PDR, and Vietnam, and around ten percent in Thailand – especially in rural areas and amongst indigenous groups (UNDP, 2000).

A portfolio of hydropower projects on the Mekong and its tributaries is viewed as one of the primary engines of economic growth for the countries in the Lower Mekong Basin. However, this is increasingly seen both as an opportunity and a danger. Recent experience shows a range of adverse social and environmental impacts of hydropower projects, both directly (i.e. from the project activities) and indirectly (from economic activity or demographic change induced or facilitated by the projects). The latter impacts include timber logging, conversion of forests to farmland, trade in endangered species, prostitution, crime, displacement, expropriation of land and overall impoverishment of people in the area. This experience has led a variety of civil society groups to oppose the construction of infrastructure projects – hydropower projects perhaps more than any other category – under current procedures.

Resource management in the Lower Mekong Basin faces major challenges. In terms of flow, the Mekong River is the eighth largest river in the world; yet its theoretical hydropower potential is only marginally exploited by modern development interventions. The vast majority of the Basin's population depends directly on the ecosystem services it provides. Any major changes to the current resource regime would have serious consequences. However, the governments in the Basin are oriented towards economic growth and modernisation, and typically view the Basin's natural resources as the means for such growth. The dominant philosophy is, it is argued, one of 'grow now, clean up later' (ADB, 2001:6).

Given the environmental degradation of the Lower Mekong Basin (cf. IEM & GEC 1996) and its impact on livelihoods (see Chapter 6), this approach obviously has a price. And although the relative lack of interest in environmental protection may be about to change, there is an

¹ The Mekong Regional Environmental Governance project, of which this study is a part, covers the entire Greater Mekong Sub-region. This case study is however largely limited to the Lower Mekong Basin (henceforth Lower Mekong Basin) for a number of reasons accounted for in Box 1.1.

uneasy gap between ‘reality’ and the policies now developing. Note Baird’s summing up of the immediate impact of the newly completed Yali Falls Dam:

The present situation along the Se San River in north-east Cambodia is critical. Villagers, including a large number of indigenous peoples from various ethnic groups, are suffering from hydrological changes caused by the Yali Falls dam in the Central Highlands of Vietnam, and ecological and social systems in the Se San River Basin have apparently already been seriously impacted by the project.

Baird, 1999:28

And compare that to, for instance, MRC’s Environment Programme being one of many policy guiding tools currently developed in the region:²

Environmental degradation ‘far away’ commonly induces lasting changes in water quality, hydraulic cycle and productivity of downstream areas, hence the importance of adopting a holistic approach to managing the Basin’s water and related resources.

MRC, 2000c:10

Obviously current reality and emerging ambitions do not match up. For the Yali Falls Dam, there has hardly been a holistic approach, or at least not one holistic enough to include assessments on downstream impact on livelihood systems on the Cambodian side. But could things be different? This study searches for answers to this question. Our initial understanding is that it is not particularly helpful to blame individual actors or to search for ill-will or disregard for environment and people in specific projects. The justification for this is that the problem is here rather understood as structural, beyond the capability of single individual to impact upon. The fact that individuals, groups and states attempt to consume more than their share of the common resources is predictable, and unavoidable (see theoretical approach below). Instead, the problem lies, the study believes, in the imperfections of governance systems. While obviously some actors are less concerned about progressive values, humanitarian concerns and sustainable development than others, the issue at stake, we believe, is the overall approach to regulation of, and decision-making on, regional environmental issues. This is the focus of our report.

This emphasis on regional governance (see Box 1.1 for definitions) is not only motivated by the shared and interdependent natural resources and threat of direct transboundary impacts, but also by growing economic interdependence, population density changes and political interactions within and between the countries. As the MRC writes in its Environment Programme:

What has changed dramatically in the last decade is the rate of development and the pressures on the environment from population growth and economic development. The population in the Basin is expected to reach 85 million by 2005./.../Although the Basin is relatively unpolluted, rapid economic development coupled with increasing population pressure is degrading the environment and the Basin’s resources at an increasing rate. It is imperative to do something now to have a positive impact on the future.

MRC, 2000c:21

Thus, this study analyses *regional governance* of natural resources, and in particular the role of key processes and core actors. It uses an empirical case study of the hydropower site selection process in the Se San and Sre Pok Basins (see Map 1.1) to explore the regulating processes and understand the positions of the various actors involved. It aims to understand the dynamics of the site selection process and assess the adequacy of the existing institutional set-up for regulating resource issues, and whether these are adequate for translating policies and political visions into good regional environmental governance in the wider Lower Mekong Basin.

Chapter 1 provides an introduction and Chapter 2 then reviews some fundamentals of the Lower Mekong Basin cooperation, as well as some theoretical positions on environmental

² As we will elaborate further below, MRC, ADB, and the World Bank are, or have been, developing new environmental policies. This has also been a growing industry in the four Lower Mekong Basin countries in the last decade.

governance. Chapters 3 to 6 focus on empirical observations of resource governance in the Lower Mekong Basin and move gradually from the historical/contextual (Chapter 3) to the more specific, tracing the role of various actors (Chapter 4), and the actual hydropower site selection process in the Se San/Sre Pok Basins (Chapter 5). Chapter 6, the last of the empirical chapters, examines the local conditions for further hydropower development in the Se San/Sre Pok Basins. The final chapter (7) draws conclusions about the role of different actors in this process, as well as for regional environmental governance in both a positive (what is it like today?) and a normative sense (what should it be like?).

1.2 Rationale and relevance

The focus of the case study – hydropower development in the Se San/Sre Pok Basins – is a politically sensitive issue. As far as we know, no non-partisan analysis has been carried out on the topic,³ and no ground research has attempted to bring together local impact with regional governance issues and mandates. There are also extremely few analytical pieces discussing the nature, limitations and possibilities of regional resource governance, in spite of its overwhelming importance. Let us justify why we have chosen this particular approach.

1.2.1 Why hydropower?

The need for regional environmental governance has gained prevalence and urgency in the last couple of years in the Lower Mekong Basin in relation to already implemented, as well as planned, hydropower interventions. Difficulties related to, and criticisms of, previous hydropower schemes are abundant, and awareness of ecological sensitivity and adverse social impacts has recently increased considerably. We chose the hydropower sector for a number of reasons:

- It is frequently said to ‘drive’ the planning of future interventions in the Basin.
- It is likely to have the greatest negative environmental impacts and thus, from an environmental point of view, is in most need of regulation (cf. Öjendal & Torell, 1997; MRC, 2000c).
- Throughout the Mekong cooperation, hydropower has constituted by far the greatest attraction for large-scale, international development interventions, which sometimes appear to feed the hydropower sector globally (cf. Usher, 1997).
- Many hydropower schemes can cause direct transboundary impacts, evidenced for example, by the recent episodes of flooding in north-eastern Cambodia from the Yali Falls Dam in Vietnam (see Box 3.2).

Various versions of hydropower development strategies are configured in the development plans of the respective countries. The corner of Cambodia-Vietnam-Lao PDR, which comprises the Se San/Sre Pok Basins, has for a long time been viewed as ‘suitable’ for early development (The Mekong Reconnaissance Team, 1961; Watco, 1984; Halcrow, 1998; SWECO, 1999), has now re-emerged as the place for some early hydropower development (e.g. Halcrow, 1998). This push for hydropower development in these basins is further reinforced by the fact that interventions on the Lower Mekong mainstream currently seem politically impossible.⁴ Major hydropower projects are also becoming utterly complex, caught between ‘development’ and modernisation imperatives on the one hand, and environmental, livelihood, and human rights limitations on the other. Historically, the former has prevailed, but lately the latter has gained considerable weight.

³ No research within the social sciences are objective, and everybody has a point of departure ultimately impacting on the end-result (cf. Myrdal 1968; Kuhn 1970). We do thus not claim to be ‘neutral’ in the strict sense. We are, however, ‘non-partisan’ in the sense that we neither belong to any group biased in any obvious direction, nor do we have a stake in the process. Our results are to the highest degree possible dependent on the data emanating from the research process and our theoretical understanding.

⁴ In the upper reaches, the situation is different. China has already built a mainstream dam, is just finalising another, and has plans for perhaps as many as a dozen more. China is constructing these dams without asking permission from the lower basin countries.

Map 1.1 Administrative Map of the Se San/ Sre Pok Basin Area



Or put differently, the current progressively common practice of acknowledging difficulties increasingly displays complexity.

Two typical and contradictory positions can be identified in the development debate: the first is a ‘pro-hydropower’ position, arguing that ‘we must build, but we shall do it as well as possible’. The opposite position is that it is ‘impossible to manage a river’ and that every intervention adds *negative value* to the overall ecosystem – although certain actors might benefit from it (McCully, 1996; cf. Hinton, 1996). These opposing positions are but two on a spectrum of diverging views and opinions on how to use existing natural resources – opinions and views that all have to be listened to and to some extent represented in decision-making fora. These seem at times incompatible and to accommodate them is not trivial; mechanisms for achieving this need be developed, hence the need for regional environmental governance (See Box 1.1 for definitions).

1.2.2 Why regional environmental governance?

In the Lower Mekong Basin, and elsewhere, the approach to regional environmental governance is ultimately determined by core actors such as national governments, intergovernmental organisations, bilateral donors, and international financing institutions, and the processes of which they are a part. Whilst NGOs and wider civil society are increasingly invited to take part, they are still marginalised from decision-making. The governance process (the outcome of various stakeholder input) in this complex context is often unclear, rendering it to either actually being, or being perceived as being, of a lower quality than otherwise would have to be the case. Whilst this is a common situation for international watersheds, the impact on both the value of such watersheds and the prospects for sustainable resource utilisation is serious, justifying an attempt to improve the situation (Salman and Chazournes, 1998).

In the Lower Mekong Basin, contrary to many other international watersheds, there exists a functioning river basin authority, the Mekong River Commission (MRC) which has an articulated mandate and an established political legitimacy (see Chapter 4).⁵ It is adequately resourced and expresses in its programme documents a high ambition, which could be a platform from which good regional resource governance could be exercised (cf. Dore, 2001). Certain prerequisites for environmental governance are thus in place. However, the MRC is by no means ‘alone’ in determining the regional environmental agenda; this is rather done in a process where administrative decisions, political influences, and various advocacy activities produce ‘governance’.

Another consequence of the regional perspective is that we place our main emphasis on regional actors and processes. Thus, for instance, national dynamics – as could be seen in national development plans, internal rivalries between line ministries, or in the national legislative development – are downplayed and given a secondary role.

Possibly even more important and as an underlying rationale for this study, there is a global convergence towards more people-oriented resource management practices, evident for example in the work of the World Commission on Dams (WCD, 2000; cf. Zazueta, 1995; Abrahamsson, 1997), as well, as we shall see, in the work of the MRC itself. However, this ostensible ‘convergence’ has not been as obvious on the ‘ground’ as it has been in policy circles, provoking questions of whether this change is ‘real’ and how it could be transformed into a tangible process for, e.g., local communities in rural regions and marginal groups in highland areas. The rift between policy and practice is thus an ever-present and important dimension of this study. Moreover, sustainable resource management is only one aspect of a much broader change towards a liberal

⁵ In the long term, ‘regional environmental governance’ in the Mekong system reasonably includes the upper reaches too, i.e. territory in China. However, currently China has chosen to carry out resource management largely without consulting with downstream countries and has chosen not to be a part of the institutionalised sub-regional cooperation. It carries, however, observation status in the MRC.

Box 1.1 Concepts and definitions

The study utilises a few key concepts in this report which need to be clarified:

- *Lower Mekong Basin*. The umbrella research programme of which this report is a part covers the Mekong region, including Thailand, Vietnam, Lao PDR, Cambodia, China and Myanmar. However, since the study is interested in 'governance' we have selected a case where regional governance is empirically tangible: the Lower Mekong Basin. For instance, the key sub-regional institution, the MRC, covers the four countries in the Lower Mekong River Basin. Whilst PRC and Myanmar, not a part of the Lower Mekong Basin, are generally non-active, some aspects of governance policies do include these countries (eg. the agreement on navigation on the Lancang-Mekong River, regulating and outlining an intervention for enhanced transportation capacity between Laos/Thailand and China), and they have the status of 'observers' at the MRC Joint Committee meetings.
- *Regional*. There are two common and rivalling interpretations of this term: the first is the state-centred perception that the states that are parts of an international watershed also constitute the region; the second perception takes a stricter geographic delineation, following the *watershed boundaries*. In this case, the study is applying the latter. This is also how the Mekong cooperation has been understood historically and how the MRC Agreement is formulated.
- *Environment*. We define this in a broad sense and for practical reasons the study follows the definition in the MRC Agreement: '*The conditions of water and land resources, air, flora and fauna that exist in a particular region.*' ('Agreement...' 1995: Ch. I).
- *Sustainable development*. This term is increasingly used in many contexts and has varying interpretations. In this report the term is used loosely to characterise development that meets the desire for economic growth and poverty reduction and at the same time safeguards the natural environment and ensures social equity, and is visible over time.
- *Governance*. This is perhaps the key concept in this study. Governance is understood as a multidimensional decision-making process involving a wide range of actors interacting in various forms (cf. Dore, 2001). Governance has arisen from the need to have decision-making 'without government' (cf. Rosenau and Czempiel, 1992; Dore, 2001).⁶ This need arises in complex and interdependent situations, with unclear regulation mechanisms, but with great need for regulation.

Governance arises as a social or societal concern whenever the members of a group find that they are interdependent in the sense that the actions of each impinge on the welfare of the others. Interdependence is likely to become a source of conflict when the efforts of individual members of the group to achieve their goals interfere with or impede the efforts of others to pursue their own ends. It will be seen as a basis for cooperation, on the other hand, when opportunities arise to enhance social welfare by taking steps to coordinate the actions of the individual members of the group. (Young, 1994:15).

The degree of need for regulation seems to co-vary with interdependence, or as Young continues, '*In general, moreover, the higher the level of interdependence among the members of the group, the more pervasive and complex these collective-action problems become.*' (Young, 1994:15).

- *Modernisation*, modernisation theory, or the modernisation paradigm refers to the dominant understanding of 'development' in the 1950s and 1960s, equalising development with economic growth, placing heavy emphasis on large-scale physical infrastructure construction, and in a deterministic way seeing development moving along evolutionary stages, eventually 'taking off'. Rostow (1962), with his 'stages of growth', is more than anyone else associated with this perspective.

order and/or concomitant respect for human rights – in the region and outside. Resource management provides, however, one of the most demanding and urgent challenges.

Thus, *regional environmental governance* is chosen for the following reasons: it may serve to improve standards of resource management in the area, the seeds of it have already been sown, it constitutes a global trend already affecting the Lower Mekong Basin, it provides a response to initial environmental degradation, and it reflects a growing recognition of the significance of strengthening an ecosystem perspective.

1.2.3 Why the Se San/Sre Pok Basin?

The study has chosen the Se San Sre Pok Basin as its primary study object for a number of related reasons. First and foremost, the REPSI project, from which this venture emanates, is primarily interested in the nexus of regional resource management and upland areas. Putting the 'Mekong issue' – unavoidably one of most important fields when discussing resource issues in Lower Mekong Basin – into that formula limits the number of suitable empirical fields considerably.

⁶ For an in-depth theoretical review of the concept, see Hasenclever, Mayer & Rittberger (2000).

However, even without that limitation the Se San/Sre Pok Basin makes an interesting case. The area has been discussed as suitable for hydropower development for a long time and it has also been intensively debated in the last couple of years. This makes it possible to both trace a process of decision-making as well as to analyse the impact of the recent changes in resource management ambitions and policy development. It is also pin-pointed for future interventions, hopefully making our observations pertinent in the inevitable debate over these interventions.

Moreover, it is ‘typical’ in the sense that since interventions are not currently feasible on the mainstream of the Mekong River, sparsely populated tributaries and highland areas, and possibly areas which is inhabited by less politically forceful population groups are likely to be the ones targeted instead. It is not only ‘typical’, it illustrates also vulnerabilities and possible consequences of resource management failures on livelihood systems. Furthermore, virtually all actors with governance significance have been directly involved in this area (the Government of Thailand only indirectly); that is MRC (or MC and IMC),⁷ ADB, the Government of Vietnam, Laos and Cambodia, a number of consultancy firms, as well as a number of bilateral donors (such as Sida, NORAD and JICA). Finally, the area and its current problems clearly fall within the mandate of the MRC Agreement, which, as we shall see, is a key document in terms of attempts at regional environmental governance.

1.3 Objectives and methods

The ultimate objective of the report is to assess how regional environmental governance occurs in practice in the Lower Mekong Basin, and how it could be improved. This objective raises a number of methodological difficulties. The first, and most obvious, is that the study is probing into a *political issue* involving huge economic interests in a ‘non-transparent’ environment. This results, in some cases, in a climate of cautiousness in giving voice to critical opinions and an eagerness to adjust interpretations of reality; and in other cases, over eagerness to interpret reality benignly. This means that we have to take a critical approach to the empirical material as well as to the perspectives we are given, and must triangulate information to attempt validation.⁸

Secondly, it is also an *ideological issue*, involving arguments from different development discourses, where certain actors with basic values make some positions and arguments incompatible.⁹ For example, ‘modernisation’ is so ingrained in most actors’ thinking that whatever our findings, it is more than likely that large-scale ‘modernist’ projects will continue to be built (Lohmann, 1998). Another common view is that the building of a ‘cascade’ of mainstream dams is largely an engineering endeavour presenting technical problems only (IMC, 1988), rather than environmental and social concerns. In the polarised debate, there is an obvious risk that polemics will overshadow substance and that already established positions will be defended, rather than discussed.

Thirdly, the study also deals with *extremely complex political and ecological processes*, which nobody can grasp in their entirety. This makes indisputable data scarce and renders uncertainty quite high (cf. Biel & Gärling, 1995; Nilsson & Segnestam, 2001).

Finally, we are analysing *decision-making processes* which are elusive and constantly changing. For example, few decisions are taken once and for all, and at any particular point in time. Instead, decision-making is a drawn-out process and one which often stops and starts. And rarely does any

⁷ The initial regional cooperation over the Mekong issues was constituted in 1957 as the ‘Mekong Committee’ (MC). When Cambodia fell out of the cooperation in 1975, an ‘Interim Mekong Committee’ (IMC) was established (1978). Finally, when Cambodia re-entered the cooperation, formally enacted in 1995, the new umbrella was the ‘Mekong River Commission’ (MRC).

⁸ Triangulation is a methodological technique used when probing for information that is difficult to access and/or controversial as well as for validating already received data. In short, the method builds on that information from one source, uses it for phrasing questions to the next source and, if necessary, continues for several ‘laps’ until enough information is acquired/validated.

⁹ While frustrating, this situation is not unique. Theoretically, Kuhn has described this through his famous articulation of the difficulties of the ‘interparadigmatic dialogue’, basically stating that if contenders in a dialogue assume different points of departures (based in different values), no dialogue will be able to bridge that rift (Kuhn, 1970).

single actor take decisions in isolation or in sovereignty. All these features provide challenges in reaching beyond trivial policy statements.

Our approach to such a complex subject has been to search for a ‘strategically situated ethnography’ (cf. Marcus, 1986); i.e. a microcosm of the bigger problem where we can study events and conditions in some detail, in order to assess the larger process. For that purpose, we have also applied a ‘tendency-finding procedure’ (in contrast to ‘variation-finding technique’). This approach is process-oriented and:

...include[s] not only a concern with constructing detailed narratives focusing on individual cases but also an interest in a level of disaggregation that highlights efforts to reconstruct the forces at play in the decisions of individual [actors] at critical turning points in their participation...In many cases, this will involve an effort to reconstruct in some detail the decision-making processes within individual [actors] as they endeavor to come to terms with the behavioral requirements.

Young, 1999:285

We have chosen the Se San Basin as the microcosm, and have taken a historical perspective to follow the process of hydropower site selection up to the present day.

Our specific research questions are:

1. What are the historical patterns of hydropower site selection in the Lower Mekong Basin?
2. Which institutions and actors attempt to exercise what kind of environmental governance, and how do they do this?
3. What have been the decisive factors (formal & informal) for the process of hydropower site selection in the Se San and Sre Pok Basins?
4. How does the socio-ecological situation in the concerned areas affect the governance process? (Testing the relevance of the policy documents and governance processes to the local situation).

We used a number of different categories of sources for this work. Fieldwork involved a series of open-ended, semi-structured interviews with key people in various regional bodies, national ministries in the four countries and at the local level. We analysed relevant statutes, policy papers, and programme declarations, as well as assessing previous relevant analytical studies and consultancy reports. Although there is a fair amount of primary material available – such as project documents, statutes, and policy declarations – very little proper ground research has been carried out, and consequently a limited amount of confirmed findings exist. We have treated the material cautiously. We also visited the key area in this study, Ratanakiri province in Cambodia, to identify local perceptions and local authorities’ understanding of the situation. Finally, the study draws on the experience of all three authors, who have been involved in relevant processes and/or carried out studies on similar subjects before in the Mekong region.

Our research approach thus combines secondary sources with primary data gathered from interviews with people involved in decision-making on Mekong issues. Data from the interviews are extensively used, but interviewees are made anonymous and/or invisible in the text due to political reasons. The full range of interviewees are listed at the end of the report. We triangulated information between sources and research methods (see fn 8). We also applied an historical approach in order to identify long-term trends, and various actors’ long-term interests, practices and ‘habits’. In this process we have also interviewed a number of senior people who have worked on the Mekong issue for a long time.

As mentioned above, the idea of governance in combination with the difficulty of sharing international resources has triggered a theoretical debate on ‘environmental regimes’. In the next chapter the study reviews this theoretical debate and discusses its applicability to our case.

2 Theoretical Approach to Environmental Governance in the Lower Mekong Basin: The Case for a Resource Regime

While it has been shown that transboundary water resource management is a regional public good, to date this good has not been well developed. It is important to ask why.

ODI & Arcadis, 2001:10

2.1 The nature of the problem

The changes in environmental governance in the Lower Mekong Basin in the last five years have demonstrated an increasing dissonance between the progressive development of resource politics and in overall regional political relations, on the one hand, and the continuation of seemingly environmentally unsustainable plans and processes on the other. This may not be so surprising since the processes in focus here are not so easy to ‘govern’. The ‘*governing of the commons*’¹⁰ (Ostrom, 1990) is an age-old problematique, involving both conflicts and poverty issues. In the light of increasing scarcity situations and with the growing interdependence among countries – as in the Lower Mekong River Basin – this concept has both gained renewed attention and been transformed into the even more challenging issue of how to regulate *international commons* (cf. Young, 1994; ODI & Arcadis, 2001).

The two characteristic features of an (inhabited) international river-basin are that: i) water, other physical resources, and ecosystem services are both available (i.e. physically possible to utilize) and common (or shared); and, ii) there is no self-evident regulation mechanism guiding this sharing. This is the classical dilemma of the ‘*tragedy of the commons*’, popularly spelled out by Hardin (1968), whereby all ‘commons’ will be overexploited if no coercive authority controls the situation. The logic behind this is that each user benefits directly from using these common resources, but shoulders only part of the collective burden of overuse. While harshly stated by Hardin, the need for some sort of regulation of commons is widely acknowledged. Yet the spontaneous creation of such regulating institutions is rare (Olson, 1965; Ostrom, 1990).

There are basically only two situations where spontaneous collective self-regulation might function. The first is where there is an overarching political/ideological consensus which includes all politically powerful actors in the system. This was the case in the early days of the (Lower) Mekong cooperation. At this time (the late 1950s and 1960s) – all governments being anti-communist – it was rational to find ways to hasten development in order to lessen the chances of a successful communist takeover. It was also logical to associate oneself to a certain degree with both the UN system and the USA (cf. Fifield, 1963). Such consensus minimised the need for regulation and maximised the chances of ‘spontaneous’ cooperation. However, in the absence of such a political/ideological consensus today, the need for regulation increases dramatically. The second would be in situations of natural disasters where contradicting interests could be temporarily bridged. However, one reason for dealing with regional governance is precisely to avoid this, so perhaps that should not be sought as a point of departure for increased cooperation and institution building.

From another point of view too, the nature of regulation has changed. In pace with increased democracy and respect for human rights, globally as well as in the Lower Mekong Basin, new ideal models for resource management have emerged (WCD, 2000:198–211). ‘Flexibility’, ‘bottom-up’, ‘participation’, ‘appropriate scale’ are all new catchwords which move away from the large-scale centrally-planned systems of the 1960s and 1970s (cf. Öjendal, 2000), towards more feedback-oriented and adaptive management systems. This more sensitive approach places a whole new set

¹⁰ Although the resources in the Mekong Basin are ‘common’ to the riparian countries, they do not constitute ‘commons’ in the strict sense. The latter sometimes relates to resources outside any jurisdiction. The international river basin constitutes a special case to which we will come in the next section.

of demands on decision- and policy-makers. The agenda is pushed towards ‘governance’ – rather than unilateral decision-making – calling for an emphasis on a regional approach, an increased role for bottom-up processes, and for an increased civil society involvement:

The emerging paradigm provides a new basis for governance and democratic decision-making. This stems from a substantial redistribution of roles and responsibilities in the public and private sectors and civil society. Many parts of the world have seen a considerable migration of national government authority, in three directions: upward to regional superstructures or international bodies, downward to provincial and local government; and outward to the private sector and civil society.

WCD, 2000:205

Moreover, water, previously viewed as abundant in the Mekong Basin, is becoming scarce in certain places and at certain times of the year either due to mismanagement or increased needs, creating competition. The previous almost euphoric atmosphere surrounding the Mekong cooperation – ‘The Mekong Spirit’ (Schaaf, 1963) – that made regulation of activities ‘easy’, has shifted to a more ‘normal’ situation of diverging interests, increasing the need for governance in order to avoid the ‘tragedy of the commons’. In addition, the ‘tragedy’ is more imminent, as evidenced by the mounting environmental problems and the increasing resource scarcity in the region.

Environmental problems that are *transboundary in nature* introduce the particular problem of ‘governing without government’, or ‘protecting the environment in a stateless society’ (Young, 1994). This is not to say that the Lower Mekong Basin is governed without governments, but implies that there is no single government or cluster of governments that can exercise its will (see the definition of governance in Box 1.1). Instead there is a multitude of interdependent structures and actors aiming to govern – or at least to influence the situation, none of which can be disregarded. Nevertheless, they all fall outside any single jurisdiction, and no government can claim sovereign right to taking decisions on mutually interdependent watercourses (McCaffrey, 1998; Salman, 2001). Mutually agreed practices for how such decisions could/should be taken need to be developed.

2.2 Environmental regimes

The above situation is not unique to the Lower Mekong Basin – quite the contrary. Difficulties of this sort are increasing in many geographical areas and in relation to many different issues. In such a situation, the best approach, it is argued, is to create frameworks – or ‘regimes’ – for environmental governance. ‘Regimes’ are ‘social institutions consisting of agreed-upon principles, norms, rules, procedures, and programs that govern the interactions of actors in specific issue areas.’ (Young & Levy, 1999:1). Not only are the various countries interdependent, they are also entangled in the international political economy in which multilateral institutions, aid donors, foreign consultants, regional bodies, and others are all also heavily involved.

The resources in question should, however, be viewed as ‘shared’ rather than common (Young, 1994:21; Öjendal, 2000), and the obvious solution to conflicting interests is, Young writes, to establish ‘joint management regimes’ (1994:22) involving the concerned states. This is, however, to grossly underestimate the complexity of developing a major river basin and the strength of the ‘national interests’ in many international watersheds (cf. Roman, 2000), as is also the case in the Mekong Basin.¹¹ The approach is to develop a competent and well-resourced basin-wide organization, which includes governments and reflects a wide array of interests. Its aims, to create

¹¹ In the Mekong case, there is an obligation written into the MRC Agreement to construct both a ‘Water Utilization Plan’ (WUP) and a ‘Basin Development Plan’ (BDP) reflecting the ambition to develop a joint management regime. The work on these plans is, however, proceeding slowly. The former is currently dealt with under a World Bank financed project and is making progress; the latter has just begun.

an environmental regime where *modus operandi* are slowly being established, could be seen as an ideal combination of what is desirable and what is attainable.

A typical analysis in regime theory would consider the ‘Mekong regime’ as already constituted through the MRC Agreement and its administrative and political machinery (cf. Roman 1998:111). This would, however, presume a successful implementation and would perhaps be to over-emphasise the authority of international agreements. In the Mekong case, this critique is particularly pertinent given that before the MRC Agreement there was another ‘regime’, which in spite of 35 years of operation has only marginally fulfilled its goal.

The above critique of regime analysis is in fact the theoretical bottom line justifying and guiding this study; i.e. it is not enough to study the *formation of regimes*, but also their *implementation* and the *results* of particular regimes. This is, furthermore, argued as being particularly relevant for international environmental issues because these are only weakly recognised in international law (Brunnée and Toope 1997:26). Hence *effectiveness* of regimes – as opposed to regime formation in a policy sense only – is increasingly pronounced (*ibid*; Roman 1998:77).

In the process of both formation and implementation, trust and state reciprocity will emerge and evolve, allowing processes where one party might ‘win’, but where others are confident that they will be allowed to ‘win’ next time (Jervis, 1982). In due time, ideally, an ‘epistemic community’ arises consisting of ‘a network of professionals with recognized expertise and competence in a particular domain or issue-area.’ (Haas 1992:3). Such a network should share an ‘intersubjective understanding’ and develop ‘shared patterns or reasoning’ (*ibid*). The emergence of this kind of community would greatly enhance policy formulation capabilities through the reduction of uncertainties and power politics, it is typically argued (*ibid*).

Possibly the current interaction over environmental issues in the Lower Mekong Basin constitutes the formative stages of an ‘environmental regime’. This is also what some key persons in the region are hoping will occur in the creation of future MRC cooperation, as opposed to relying on any strict ‘legal’ and/or coercive and hence conflict-creating and unenforceable structures. For this to happen, a certain degree of effectiveness of the MRC Agreement needs of course to be detectable.

2.2.1 Creating effective regimes

Regimes are, however, not necessarily good in themselves and will certainly not solve the problems in any simple and straightforward way.

...there is no universal formula. The most appropriate decision-making process will depend to an extent on the type of development under review, the political and cultural setting of the development, and other constraints relating to the urgency of the need and the likelihood of negative impacts.

WCD, 2000:209

Young and Levy (1999) claim that ‘*Regimes can range along a continuum from ineffectual arrangements, which wind up as dead letters, to highly effective arrangements, which produce quick and decisive solution to the problem at hand.*’ (1999).

What constitutes, then, an effective environmental regime? The effectiveness of regimes can be judged in at least five different ways:

1. The *legal approach*: where an effective regime is one which creates its own regulations and/or international laws. This seems to be a common way – judging from the amount of literature on the subject – to conceive of effectiveness of regimes;

2. The *problem-solving approach*: measures the efficiency of a regime by focusing on the degree to which the problem that caused the emergence of a particular regime is being solved. This is of course an appealing way of measuring efficiency;
3. The *economic approach*: does it deliver? In our case, this perception of regimes is closely related to the issue of ‘development’;
4. The *normative approach*; considers a regime to be effective if it is capable of creating ‘justice’, ‘fairness’, ‘participation’ or any other normative good;
5. The *political approach*; this measures the extent to which a particular regime manages to influence the political behaviour of the key actors (closely related to 1).¹²

Of course a particular institution can take several of these roles. Our study aims to understand which kind of governance regime is evolving in the Mekong Basin, and whether it will solve the problems at hand (and be ‘efficient’), or not (and wind up as a ‘dead letter’).

Another important question is perhaps what a watershed regime should encompass. Clearly water is the key resource intrinsic in the concept of the international watershed. However, the idea of watershed, as opposed to ‘watercourse’ for instance, takes a broader range of land use issues into account. This question was central during the formative stages of the MRC Agreement, with arguments ranging between the MRC as a ‘pure’ water body to a full regional development authority. The MRC’s eventual mandate went far beyond only dealing with water, but it was also far from a general development mandate (cf. Miller, 1996).

Another aspect, further complicating the idea of governing an international watershed, is the inherent, unavoidable, asymmetry in interests. Upstream states almost always have a lesser interest in regulating resource use, which can result in difficult power relations:

Among the most difficult situations to deal with is the well-known upstream-downstream problem in which an upstream country can largely externalize the costs of its resource consumption and by doing so it can negatively affect a downstream country.

Bernauer, 1997:171

In this type of relationship, upstream countries are usually capable of negotiating a better deal than more vulnerable downstream states. In other words, the distribution of power is structurally skewed. However, an interesting observation is that this ‘asymmetry’ can, in an interdependent international society, be counteracted through other mechanisms and processes. For instance, Ratner has suggested in the Mekong case that:

China has a significant stake in regional economic cooperation through improving rail and road transportation links to ports in Vietnam, Burma, and Thailand that would provide an outlet for goods produced in China’s southwest. Tying such economic interests to river basin cooperation may be the most effective lever of influence for downstream governments.

Ratner, 2000:16

Similar processes are already at work in the MRC cooperation. Thus, interdependence not only necessitates regional governance, but might actually facilitate it too. This requires, however, stable institutions, political trust and agreements on reciprocity. Thus institutions constitute a large and important investment in society, particularly, some would say, in the international society where power politics might be the sole alternative. Others would argue that this is necessary in a situation characterised by lack of social consensus and a firm knowledge base (cf. Nilsson & Segnestam, 2001).

¹² This list is freely elaborated from Young & Levy, 1999:4f.

In the 21st century, with all likelihood, competition over natural resources will increase globally, as well as in the Mekong region, and institutions and cooperation are more crucial than ever. Noteworthy in this respect is that the institutionalised cooperation in the Lower Mekong Basin has been labelled the most successful international watershed cooperation in the Third World (Jacobs, 1992), and it is now nearing half a century of operation. It is perhaps now, in the emerging situation, that it will be put to real test. A key aspect of the above concerns is the design of institutions and the type of governance they are able to exercise. Empirical research shows that there is a huge difference in the outcome, dependent on how ‘environmental regimes’ are constructed (Young & Levy, 1999:1; see further below). This is also, we believe, the case for the outcome of the institutionalised Mekong cooperation.

3 Geo-political Context of Regional Environmental Governance in the Lower Mekong Basin

Lower Mekong Basin governance has been a part of the turbulent politics of this region since the 1960s, or even before that. Despite long-standing institutional cooperation, or possibly due to this, the Lower Mekong Basin is largely unexploited by large-scale hydropower projects. This is, however, not due to lack of potential since the prospected value of the river basin's water resources is immense. The most optimistic assessments estimate the hydropower potential to be an enormous 505 Terra-watt hours/year (IMC, 1989:9): Lao PDR has been branded the 'Kuwait of Southeast Asia', Vietnam would like to solve its problem of steeply increasing electricity demand by hydropower expansion, and Cambodia sees hydropower as a potential source of future quick export incomes. Historically, though, hydropower development in the Lower Mekong Basin has been a series of unfulfilled promises (cf. Hinton, 1996), which also echoes a global pattern (McCully 1996; Adams 1992). The turbulent politics of the area has had, and to some extent still has, a crucial role in this. But for the first time in four decades, the geo-political context seems to be conducive to major investments.

3.1 A brief history

Huge plans were made and displayed in the Lower Mekong Basin Masterplan from 1970, calling for a 'cascade' of dams consisting of seven major mainstream dams, and between 100 and 200 tributary ones, turning the Mekong into a fully regulated river. This planning approach appeared to be an attempt to replicate the experience of the Tennessee Valley Authority (TVA) in the US. At the time, such a grand approach was not surprising, fitting both the functionalistic approach to planning and the endless development optimism of the time. However, somewhat more remarkable was that the plans revised in the 1980s were only marginally reduced (IMC, 1988). The last, or latest, attempt to develop a project on the mainstream of the Lower Mekong was the Low Pa Mong project in the early 1990s. The controversy surrounding this project in combination with the anticipated re-entry of Cambodia to the Committee eventually resulted in the forced resignation of the then Chief Executive Agent of the Interim Mekong Committee (Hiebert, 1991).

However, throughout the 1960s and 1970s, minor tributary projects were also planned, and some were even executed. The largest of these was the Nam Ngum Dam in central Lao PDR (cf. Hirsch, 1998). However, even these minor plans were hampered by regional conflicts and general insecurity. The 1970 *coup d'état* in Cambodia initially promoted more collaboration between riparian countries and closer ties with other countries such as South Vietnam and Thailand in order to unite against the communist forces (see Box 3.1 for a political chronology). As a result, the north-east provinces of Cambodia were increasingly targeted by the Mekong Committee for hydropower studies. Most of these studies were, however, desk studies with minimal local knowledge due to inaccessibility by road and widespread warfare (Mekong Secretariat, 1970). In the 1970s, the Mekong Committee devoted much of its resource planning to the 180 prospective dams on tributaries of the Mekong River that had been identified in the Masterplan of 1970, including dams in the Se San and Sre Pok Basins.¹³

Despite the war spreading across the region, planning for the large-scale development of the Mekong Basin continued. However, in 1975, with the Khmer Rouge coming to power in Cambodia, the communists taking over in Lao PDR, and Vietnam united under communist rule, the momentum was broken. In spite of this, the Mekong Committee (MC), and the Interim Mekong Committee (IMC) – without Cambodian participation – from 1978 spent considerable resources on putting

¹³ Even today, at the Ministry of Industry, Mines and Energy in Phnom Penh, a big map hangs, complete with flags indicating possible hydropower projects emanating from this era and these plans.

Box 3.1 Political development in the Lower Mekong Basin

- 1954 The Vietminh successfully defeats the French troops at *Dien Bein Phu* and negotiates independence for the 'Democratic Republic of Vietnam'. However, the southern part remains non-communist, and due to American pressure the country becomes divided.
- 1957 The Mekong Committee was constituted with South Vietnam, Cambodia, Laos and Thailand as members.
- 1960 The Communists in North Vietnam decide to aid the communist forces in the south militarily.
- 1964 The 'Tonkin-incident' 'takes place', although fabricated, at the time it made it possible for the USA to engage militarily in the spreading civil war in South Vietnam.
- 1967-68 The war in Vietnam reaches its peak with more than 500,000 Americans engaged. The war gradually spreads to Cambodia and Laos.
- 1970 Lon Nol takes power through a *coup d'état* in Cambodia. Civil war increases. The Mekong Masterplan is presented.
- 1969-73 The US negotiates its way out of the war, which in the short run means increased warfare. Laos and particularly Cambodia is massively bombed.
- 1975 Vietnam and Laos is united under Communist rule. The Khmer Rouge takes power in Cambodia. Cambodia is absent from the Mekong Committee.
- 1978/79 Vietnam invades Cambodia and the Khmer Rouge is ousted from power.
- 1981 The Mekong Committee is reconstituted in an interim version and becomes operational, although without Cambodian participation.
- 1986 'Doi Moi' is officially introduced in Vietnam.
- 1987 The revised version of the Mekong Masterplan is presented.
- 1988 Thai Premier Chatichai declares that it is time for 'Battlefields' to be turned into 'Market places' in mainland Southeast Asia. Regional reconciliation commences.
- 1989 Vietnamese military leaves Cambodia.
- 1991-93 Successful peace process in Cambodia followed by national election which re-instates an internationally recognised government, opening up for renewed Cambodian engagement in the Mekong cooperation.
- 1992 Large-scale confrontation between people and police/military in the streets of Bangkok implying the introduction of a decade of democratisation in Thailand. Reconstitution of the Mekong Committee fails.
- 1992-95 Negotiations over a new Mekong Agreement eventually succeeds in 1994 and is undersigned by the four Lower Mekong Basin countries in April 1995.
- 1995 Vietnam becomes a full member of ASEAN. Laos follows 1997 and Cambodia 1999. Regional conflicts are now downplayed.
- 1999 Leadership change at the MRC Secretariat and initiation of a reform period.

together an ambitious reworked Masterplan for building eight mainstream dams, which was presented as the revised Masterplan of 1987 (IMC, 1988).

This plan is not bothered about resettlement, livelihood systems, fishery or human rights difficulties. In the same spirit it also outlines the 'large' and the 'small' Yali Falls in the Upper Se San. There is neither any reference to, nor any information on, the people living in the area who were supposed to be flooded or affected by downstream impacts. The plan gives the impression that the only problem associated with building the proposed dams is getting finance (*ibid*).

In hindsight, since the mid/late-1960s there had not been any real chance of getting the Mekong cooperation operational as originally envisaged, given the political development of the region. There was even less chance of considering the actual content of 'development'. One important break was with the change in regional policy by Thailand in 1988, where 'battlefields' were to be made into 'marketplaces', starting a process of both regional reconciliation and enhanced opportunities for commercial interests. However, the underlying contradictions – such as Thailand no longer accepting downstream veto rights as was outlined in the statutes of the original Mekong Committee – came to the surface leading to an erosion of the spirit of cooperation. Consequently, the previous consensus on the statutes of the original Mekong Committee broke down in 1992/

1993, triggered by questions of water utilisation rights and the return of Cambodia to the IMC (which would have lead to a return to the MC-statutes and its stricter rules, cf. Öjendal, 2000). Not only had the politically diverging interests to be accommodated, the idea of the committee itself had to be updated and re-invigorated (Radosevich, 1996). Despite major difficulties, and a heavy-handed involvement by the donor community (Öjendal, 2000), the process was eventually successful, coming up with the MRC Agreement in 1995 (Radosevich, 1996), which gave rise to the potential for starting a more socially and environmentally sensitive process of regional environmental governance (see Chapter 4).

However, the much-awaited shift in regional resource management did not really occur. Instead, the newly established MRC, and particularly its Secretariat, was ineffective, resisting any reform of working methods and any revision of the development approach. At the same time, the growing demand for hydropower found its outlet in various ways: through Laotian experimentation with private sector options made financially viable through Thai energy purchase forecasts; through Vietnamese attempts at matching the nationally increasing energy demands with internal hydropower expansion; and through Cambodian dreams of ‘easy’ export incomes from energy export realised through hydropower interventions (Hirsch, 1998; Mareth, 1996; cf. Phanrajsavong, 1996). The Asian Development Bank (ADB), through its GMS strategy conceived in 1992 (see footnote 26), added momentum to these processes, as did private sector interests and occasionally bilateral donors through their financing of inventory and feasibility studies.

Perceived modernisation imperatives and pressure for economic growth meant that most critics to these approaches were brushed aside. However, our interviews clearly indicate that the MRC member states were also interested in modesty, sustainability and environmental governance, also manifesting itself, e.g., in that both the MRC Agreement and several environmentally progressive policies, plans, and programmes have passed the MRC Council and Joint Committee. This, in combination with donor discontent with the lack of change, led eventually, in 1999, to a new leadership of the Secretariat and the initiation of a reform towards more transparent working methods and to a more explicit application of environmentally sustainable approaches. Currently it is reported that although the MRC pushes programmes and regulating processes, sometimes seemingly detrimental to national plans, this is overall appreciated by the riparian countries.

Since 1999 all four Lower Mekong Basin governments are members of ASEAN, meaning that the Cold War era of institutionalised regional conflicts has changed to a climate of potential cooperation. This does not mean that the contradictions over resource utilisation are solved, but rather that emerging conflicts are structurally played down, and that this constitutes an overall political regime conducive to enhancing environmental regime building.

To sum up: being originally conceived as a ‘political tool’ for mutual development (in the 50s and 60s), the Mekong cooperation soon found itself hindered by the civil wars and power struggles in the region. One effect of this was that the plans and visions laid down in the 1970 Masterplan were never really fully considered and consequently ‘survived’ into the 1990s, when renewed energy was injected in response to the politically more benign climate. Lately, however, doubts about the utility of big dams, protests from environmental groups, human rights concerns, and hesitation from donors have constituted major obstacles to these plans, triggering new visions and policies.

3.2 The status of environmental governance in 2001

It seems evident that mistakes have been made in relation to both the degree of participation and consultation, and with regard to environmental impact assessments in recent hydropower ventures in the Lower Mekong Basin (cf. WCD, 2000; *Watershed*, various issues; Fisheries Office, 2000; CRES, 2001; cf. ADB 2000b). These mistakes of course indicate the limited effectiveness of the

existing regional environmental governance process. However, all these cases were planned and (partly) executed during the previous resource management regime in the Lower Mekong Basin; i.e. in the pre-1995 Agreement era. Theoretically the 1995 Agreement – and in particular the more advanced programmes developed by MRC – should be capable of preventing failures of this kind; however, in the present situation and the current status of the agreement, there are no guarantees.

The 1995 MRC Agreement has considerably altered the conditions for Mekong environmental governance in various ways. It increasingly ‘allowed’ interventions through its liberal order (particularly the removal of the veto), but at the same time gave rise to greater opportunities for shaping institutions for regulating resource use. There is, thus, a dual movement in the Agreement: greater overall room to manoeuvre, but also greater scope for regulation, should it be necessary. These changes and their in-built contradictions have not been problem-free, evident in, for example, the pervasive criticism which continues to be directed towards planned and actual hydropower interventions (cf. Usher, 1997; McCully, 1996; *Watershed*, various issues; SEI & IEM, 1997; cf. Öjendal, 2000). This criticism has been particularly convincing in relation to the construction of a number of hydropower stations in the Lower Mekong Basin, such as the Pak Moon dam in north-eastern Thailand, Nam Theun II in Lao PDR, and Yali Falls in Central Vietnam (see Box 3.2).¹⁴

It now appears that due to the difficulties with, and mounting criticism of, mainstream interventions (as recommended in the revised Masterplan of 1987 and appearing as late as 1996 in the MRC work programme), less populated areas along the tributaries are being sought for new hydropower projects. A preliminary decision has been taken by the member states to start identifying a number of dam projects in the Se San, Se Kong and Nam Theun river basins (see Chapter 5 for more details, plus *Watershed* November 1998; SWECO, 1999; Halcrow, 1998). These newly proposed dams are supposedly the first in a series of dams under the new MRC Agreement with direct transboundary and major environmental impact, and as such make ‘suitable’ cases for judging the efficiency of the new governance instruments, primarily the MRC Agreement.

The trend towards pushing ‘new’ projects into marginal areas – i.e. upland areas populated by people with little political influence, where there is scant knowledge of national socio-political systems, and where resource issues are extraordinarily important for the existing livelihood systems – reinforces the need for efficient, pro-active, regional institutions (cf. Öjendal *et al.*, 2001). The consequences of a lack of such institutions was demonstrated at the opening of the Yali Falls Dam in early 2000, which resulted in a number of human casualties, a degraded resource base, and a dent in regional relations. But in the aftermath of the opening of the dam, it also became evident that MRC could play an effective conflict resolution role, and thus the embryo of a ‘regime’ began to emerge (see Boxes 3.2 and 6.1).

There remains general uncertainty about how the regulation of the resource interventions in the Basin and various interests will co-exist. To what extent will the existing environmental policy tools – e.g. the MRC Agreement, national environmental policies and donor demands for environmental assessments – and their defenders, be ‘strong enough’ to regulate vested interests, economic incentives, political pressure, and resource competition, and in the process establish a solid foundation for regional environmental governance? The design and substance of the regional institutions also define how cooperation can (or will) be exercised. Or to put it more dramatically: is the large investment in institutions at the regional level worth the cost?

¹⁴ The Yali Falls dam has a long history and was planned, and to some extent constructed, under the previous regional resource regime, and is thus not best-placed to provide evidence as to whether or not the current regime is efficient. There is, however, a wealth of local experiences that can be drawn upon for discussing desired qualities of the present regime (cf. Fisheries Offices, Ratanakiri & NTFP 2000, and Chapter 6).

Box 3.2 The Yali Falls Dam incident

The 'Yali Falls' is the common name for the first hydropower station constructed in the Se San Basin. It has been highly criticised for its downstream/crossborder impact, and has been the focus for the debate on hydropower interventions in the Se San Basin (Fisheries Office, 2000; CRES, 2001; Sithirith, 2001).

The Yali Falls is located in Vietnam about 70 km from the Cambodian border. The 65 metre high dam and 64.5 km² reservoir will generate 720 MW of electricity. Its full costs are believed to be around one billion US dollars (CRES, 2001). Construction began in 1993 and was completed in December 2001. It is a Vietnamese project with largely Russian and Ukrainian financial support. Although environmental impact studies were criticised for being of sub-standard quality, the project was partly supported by various donors. In 1985 the Swedish company, SWECO produced a report entitled 'Appraisal of the Yali Falls Hydropower Project'. The EIA report was criticised, *inter alia*, for not addressing the environmental issues in downstream Cambodia. The EIA covers an area eight km long and one km wide below the dam. The downstream impacts of the Yali Falls Dam were apparently not discussed with Cambodian authorities when the preparatory studies were conducted (see Chapter 6). According to Baird (2000), Sida contributed US\$ 3.2 million to the Swedish Company Skanska to provide assistance in tunnel-building training, and the Swiss Government provided US\$ 1,090,000 to fund the EIA which MRC coordinated. This was completed in 1993 by the Swiss company Electrowat Engineering and Consultant. The Yali Falls, being a national Vietnamese undertaking, initiated before the MRC Agreement came into force, made it difficult for the MRC and donor countries to influence the process, had they sought to.

The sealing of the river, the closing of the dam, and the subsequent irregular release of a large amount of water from its reservoir have affected the hydrological regime and water quality of the Se San River downstream. The irregular flows since the hydrological problems in the Se San first begun have caused a number of casualties. On the Vietnamese side, the change has imposed hardships on the population although information about the likely impact has been more or less available locally (CRES, 2001). On the Cambodian side, people have died in the flood wave caused by starting-up testings, material has been lost, diseases have appeared that might be related to deteriorating water quality, and the general health situation has deteriorated (Fisheries Office, 2000). The previous livelihood systems might not be able to sustain the population anymore. These impacts have been serious for approximately 20,000 indigenous people living along the Se San River in Ratanakiri province. Since 2000 they have been particularly acute for a smaller number of people residing right along the river (cf. *ibid*). Finally, a general sense of insecurity has also been introduced since people never know when the next flood wave will come. This has forced behavioural changes among the affected people (cf. CRES, 2001).

In the wake of the 'Yali Falls Incident' a debate has arisen on the role and responsibility of the donors and the multilateral organisations. Why did Sida support the project in spite of incomplete environmental and socio-economic preparatory studies? What responsibility does MRC have, given that it was involved in getting the project started? What is the relationship between the donors and the consultants, who are often from the same country? What obligations does the Government of Vietnam have to adhere to the programmes and standards outlined by MRC? If this intervention is inevitable, why, it has been asked, should the local people bear the brunt of the impacts?

The conclusions that are drawn from the Yali Falls experience and the strategies subsequently chosen by the key actors, obviously provide a key to the future of regional environmental governance in the Lower Mekong Basin.

4 Actors and Policies: Roles and Responsibilities

There are many actors exercising varying degrees of formal and informal influence over decision-making processes in the Lower Mekong Basin (Box 4.1; Dore, 2001). This chapter outlines the key actors, their development strategies and policy positions in relation to hydropower development in the Lower Mekong Basin. It is partly written in relation to our experience of the Se San/Sre Pok case. Formally, the most central among these are the state governments and the Mekong River Commission. However other actors like the ADB, bilateral donors and consultancy companies play key roles. Finally, civil society also exerts a limited, although through well-organised NGOs increasingly significant, influence. The chapter serves to outline policies and visions for allowing a contrast with subsequent empirical observations.

4.1 The role of the MRC and MRCS in Mekong governance

The sole aim of the [Mekong] committee is to exploit the almost unlimited potential of the great Mekong for the benefit of the people living in the Basin and around, without distinction of politics and nationality. What is aimed at is that the God-given rich resource be exploited for the benefit of mankind.

Hayath, Industry and Power Development Adviser, 1966:42

The 1995 MRC Agreement institutionalised future cooperation over Mekong resources through the Mekong River Commission (MRC).¹⁵ The Agreement is more liberal than its predecessor in terms of water use, and most importantly, it eased the *de facto* downstream veto right which had previously been in operation. The only really ‘legally’ binding aspect of the Agreement is the obligation for mutual notification of interventions and to agree on inter-basin diversions in the dry season. The ‘Agreement’ also contains many controversial issues which have not been resolved, but have instead been embedded in the deal. Article 26 sums up these unresolved issues quite well:

The joint committee shall prepare and propose for approval of the council, *inter alia*, for Water Utilisation and Interbasin Diversions pursuant to articles 5 and 6, including but not limited to 1) establishing the time frame for the wet and dry seasons; 2) establishing the location of hydrological stations/.../ 3) setting out criteria for determining surplus quantities of water during dry season on the mainstream; 4) improving upon the mechanism to monitor intra-basin use; and, 5) setting up a mechanism to monitor diversion from the mainstream.

‘Agreement on...’, 1995:Article 26

Of equal importance is the drawing up of a Basin Development Plan which should be an integral part of the Agreement. However, six years after the Agreement, the Terms of Reference for the Basin Development Plan have just been completed as a preparation for a drawn-out period of plan elaboration. A Water Utilization Programme (WUP) is however well advanced, although it is reportedly a politically challenging process. In a more generic sense, however, the Agreement raises three partly contradictory implications of direct relevance to our study.

Firstly, a number of progressive dimensions – ‘soft issues’ – such as, general regional water regulation, environmental protection, and conflict resolution were included, formalised and institutionalised in the Agreement. Thus, the ground was prepared for more ‘responsible’ and

¹⁵ The MRC operates on three different levels: the supreme political level is the ‘Council’ with political representation at ministerial level who takes overall, principled, decisions; the second level, the ‘Joint Committee’, is the operational steering committee with representation on head of department level and the one which works close to the third level; the ‘MRC Secretariat’ is the technical and administrative arm of the organisation.

Box 4.1 Examples of Major Actors in the Hydropower Debate in the Lower Mekong Basin¹⁶

STATES

Lower Mekong governments: Cambodia, Lao PDR, Thailand and Vietnam; *Upper Mekong governments:* China and Myanmar; *Non-Mekong governments:* Japan, PRC, United States of America, South Korea, Singapore, Sweden, Denmark, Germany, Australia.

REGIONAL ORGANISATIONS

Asia-Pacific Economic Co-operation (APEC), Association of South-East Asian Nations (ASEAN) also ASEAN + 3 (incl. South Korea, PRC, Japan), Mekong River Commission (MRC), Ministerial Forums e.g ADB-hosted Greater Mekong Subregion Economic Co-operation annual meetings, ESCAP Environment Ministers' 5 yearly meetings, Asia-Europe Meetings (ASEM).

CIVIL SOCIETY ORGANISATIONS

Sub-national NGOs: Assembly for the Poor (Thailand), Northern Development Foundation (Thailand), Cambodian NGO Forum – and their members, which may be other NGOs or grassroots peoples' movements.

Regional NGOs: Focus on the Global South (FOCUS), Asia-Pacific Forum for Women Law & Development (APWLD), Towards Ecological Recovery and Regional Alliance (TERRA).

International NGOs: The Oxfams, World Wildlife Fund (WWF), IUCN; plus, philanthropists such as Ford Foundation, Rockefeller Brothers Fund, Rockefeller Foundation etc.; plus development assistance subsidiaries of non-Mekong political parties such as the German Green Party's Heinrich Boell Foundations; plus Church groups e.g World Vision.

People's movements: may be facilitated or supported by NGOs (e.g People's Forum Chiang Mai, May 2000), TERRA, PER, and FOCUS in Thailand, locally based NGOs, local water user groups.

Mass organisations: may have strong links to the state (e.g Lao Women's Union, irrigation user groups).

NGOs

United Nations 'family': UN Economic and Social Commission for Asia and the Pacific (ESCAP), United Nations Development Program (UNDP), United Nations Commission on Trade and Development (UNCTAD), United Nations Environment Program (UNEP), United Nations Education Scientific and Cultural Organisation (UNESCO), Food and Agriculture Organisation (FAO) etc.

PRIVATE SECTOR

Local and national companies (private or private/public), transnational corporations (TNCs) and other international business, consultants, private financiers, also the deal arrangers and insurers.

MULTILATERALS and BILATERALS

Multilateral public financiers, donor groups, trade regulators: Asian Development Bank (ADB); World Bank 'family' - International Bank for Reconstruction and Development (IBRD), the International Monetary Fund (IMF) and their associated credit guarantee agencies; associated Donor Consultative Groups (DCGs) which may also include bilateral and NGO members; World Trade Organisation (WTO).

Bilateral public financiers: 'Aid' organisations from Japan JICA, United States of America USAID, Sweden Sida, Denmark DANIDA & DANCED, Australia AusAID, Germany GTZ, but also major financiers such as Japan Bank for International Co-operation (JBIC) and their respective export credit guarantee agencies.

POLICY RESEARCH INSTITUTES

Cambodia Development Resource Institute (CDRI), Centre for Biodiversity and Indigenous Knowledge (CBIK Yunnan), Environment Research Institute (ERI Lao PDR), National Economic Research Institute (NERI Lao PDR), Thailand Development Resource Institute (TDRI), Stockholm Environment Institute (SEI), Viet Nam Environment and Sustainable Development Centre (VNESDC), Yunnan Academy of Social Sciences (YASS), World Resources Institute (WRI).

RESEARCH and/or ADVOCACY NETWORKS

Asia Resource Tenure Network (ARTN), Development Analysis Network (DAN), Greater Mekong Subregion Academic Research Network (GMSARN), International Centre for Research on Agroforestry (ICRAF), International Mekong Research Network (IMRN), Oxfam Mekong Initiative (OMI), European Assoc. of South-East Asian Studies (EUROSEAS), Resource Policy Support Initiative (REPSI); plus aforementioned APWLD, FOCUS, TERRA. A range of universities such as: AIT, Bangkok, Cantho (Viet Nam), Chiang Mai (Thailand), Sydney (Australian Mekong Resource Centre), Goteborg (Sweden).

Adapted from Dore (2001)

¹⁶ This is the range of actors that have appeared as significant in the hydropower debate in the Lower Mekong Basin during our research.

more environmentally sensitive governance of the Lower Mekong River Basin, or as it was phrased in the first article of the MRC Agreement:

The parties agree:...To cooperate in all fields of sustainable development, utilisation, management and conservation of the water and related resources of the Mekong River Basin including, but not limited to irrigation, hydro-power, navigation, flood control, fisheries, timber floating, recreation and tourism, in a manner to optimise the multiple-use and mutual benefits of all riparians and to minimise the harmful effects that might result from natural occurrences and man-made activities.

*Agreement on the Cooperation for the Sustainable Development
of the Mekong River Basin, Chapter III, Art. 1*

And, moreover, the parties agree:

To protect the environment, natural resources, aquatic life and conditions, and ecological balance of the Mekong River Basin from pollution or other harmful effects resulting from any development plans and uses of water and related resources in the Basin.

*Agreement on the Cooperation for the Sustainable Development
of the Mekong River Basin, Chapter III, Art. 3*

Thus ‘the environment’ is contractually protected in agreement between the four parties, limiting the parties’ space to choose freely whether or not to take environmental protection into consideration. This is a new dimension to the Mekong cooperation and increases considerably the scope for working with regional environmental governance.

Secondly, all four parties seem to agree that the current document is a good platform for mutual development of the Basin’s resources. This consensus opens opportunities for a wide array of economic and political interventions, both government and private initiatives, which were not attainable before, but it also, paradoxically, increases the risk of environmentally degrading activities. A ‘free-for-all’ regime is obviously contradictory to the postulates of sustainable resource management if the ‘tragedy of the commons’ logic reviewed in Chapter 2 is accepted.

This increased accessibility of development opportunities expressed itself, *inter alia*, in a major interest from the private sector in financing, owning and operating individual hydropower projects. This was, in principle, positively viewed by the regional governments. It was especially attractive because bilateral and multilateral donors were progressively introducing environmental and social criteria, impeding rapid hydropower expansion. Private sector involvement could be seen as a way of circumscribing these criteria and accessing investment resources, jeopardising environmental sustainability in the process.

For instance, Cambodia expected that the private sector would have instigated a much faster hydropower expansion than what has been achieved with overseas development assistance (cf. Mareth, 1996). In Lao PDR, ‘Build-Own-Operate-Transfer’ (BOOT) was being investigated – a formula whereby the private sector contributes the major part of the construction costs, and gets the right to operate the station and cash in the profit for, say, 25 years, after which it would be transferred to government ownership. Lao PDR has tried, and to some extent succeeded, to expand its hydropower sector with the assistance of the private sector, as in for instance, the Nam Theun II Project. This – both the project and the method involving the private sector – has been fiercely criticised by the NGO community. Se San 3 was also planned for a time to be developed in cooperation with the private sector (see Chapter 5). The private sector interest has, however, abated somewhat in the face of the complexities of hydropower development and the ‘Asia crisis’ affecting the price of energy and the interest of Thailand to buy the electricity. Clearly there is a major commercial risk involved in selling a product in a market where there is only one possible buyer.

Box 4.2 MRC Restructuring

Perhaps the most important change in the MRC's working methods was its evolution from a *project* to a *programme* approach. This process was initiated in 1998 in the *Strategic Plan 1999-2003*, and is further emphasised as its various programmes are being developed. The 2001 Work Programme has as its theme, '*From project to programme*'. This plan described the 'vision' for the future Mekong River Basin as: '*An economically prosperous, socially just and environmentally sound river basin*'. MRC's 'mission' was: '*To promote and co-ordinate sustainable management and development of water and related resources for the countries' mutual benefit and the people's well-being by implementing strategic programmes and activities and providing scientific information and policy advice.*' (MRC, 2000a).

This is an ongoing process. '*The organisational restructuring of the Secretariat aims to ensure achievement of these important objectives and to reorient the MRC operational activities from a mainly sectoral project approach to a multi-sectoral and basin-wide programme approach. This is necessitated by the Strategic Plan.*' (MRC, 2001a).

The work under this new order has been structured into three core programmes: the Basin Development Plan; Water Utilisation Programme; and Environment Programme. To support these programmes five sectoral programmes have been developed: Fisheries; Agriculture, Irrigation and Forestry; Water Resources and Hydrology; Navigation; and Tourism. These are in varying stages of completion.

These new sector programmes are supposed to guide member countries in their interventions in the Lower Mekong Basin. The idea is to ensure that each institution concentrates on its strengths: implementation is best carried out by national line-ministries following decisions in national parliaments and in concert with local communities; the MRCS, with its technically qualified staff, is better placed to provide policy guidelines, technical support and overall coordination. For example, the MRC's environment programme aims to improve project quality, enhance overall environmental awareness, strengthen institutional capacity to protect the environment, and support national planning. A number of externally funded and run studies such as the wetlands programme (Sida), Danida environmental programme, and the Strategic Environmental Framework, initiated by the ADB, is supporting and cooperating with this work.

A third, crucially important, consequence of the MRC Agreement is that it shifts MRC's role from one of *project* coordination to a greater *programme* focus (Box 4.2). Whilst the initial Mekong Committee – in the 1950s and 1960s – was never intended to take a project approach, many planned projects were so big that they became regional concerns and came to define the regional agenda (such as the 'cascade' of dams on the mainstream).

Clearly, the MRC's ability to influence the current situation depends on the content of the new programmes outlined in Box 4.2 (and below, especially environment and hydropower), and how they operate in practice. The operationalisation is supposedly primarily the role of the National Mekong Committees, but it is no easy task. Let us address these two key aspects, the new programmes and the NMCs, in turn.

4.1.1 MRC's programme content: environment and hydropower strategies

Environment programme

MRC's long-term environment programme, covering the period 2001-2005, is the first concrete result of MRC's move towards a programme approach and as such it paves the way for other programmes. It assumes a high profile. In its own words: '*The scope of the programme is ambitious, but the stakes are high – the livelihood and prosperity of the growing population living in the Mekong Basin.*' (MRC, 2000c:10). It has based its content on articles three and seven in the MRC Agreement ('Protection of the environment and ecological balance' and 'Prevention and cessation of harmful effects' respectively). The 'immediate objective' of the programme is:

Improved capacity among the riparian Governments to secure a balance between water and related resources development and the protection of the environment to ensure a healthy Mekong River Basin capable of supporting the natural resources diversity and productivity which are central to the livelihoods of the people.

MRC, 2000:1

It relates directly to the 'Basin Vision' and the 'MRC Mission' in MRC's 'Strategic Plan' from 1998 (MRC, 1998; Box 4.2).

The implementation of the programme is divided into five components: i) Environmental monitoring and assessment; ii) Environment decision support; iii) Strategic networking and coordination; iv) Capacity and awareness building; and, v) Support studies and research facilitation.¹⁷ Through these components, hard data on water quality will be gathered which will facilitate integrated environmental analysis, improve environmental policy for the Basin, and improve coordination of development initiatives. It will, further, promote regional ecosystem thinking and reinforce basin-wide perspectives. Finally, in-house as well as external capacity to carry this out will be supported.

The entire programme breathes confidence and it expresses great optimism over its own role and potential to realise its goals:

The MRC, as the only wholly riparian structure representing riparian interests, is in a position to ensure a balance is maintained between economic development and a healthy Mekong Basin environment, supporting the natural resources diversity and productivity critical to the livelihood of its people.

MRC, 2000c:7

It also claims to solidly reflect the riparian country perspectives:

The current programme reflects the national views of the participating governments on regional environment issues and their proposed approaches to addressing these issues. The Environment Programme, in concert with all other MRC Programmes, focuses on the issues that need to be addressed by the Mekong River Commission over the next decades in order to ensure a balance between economic development and environmental concerns.

MRC, 2000c:1

Ultimately it aims at, from an environmental perspective, connecting the MRC Agreement with MRC's Strategic Plan and thereby connecting policy with reality. Although currently donor funded, it is eventually expected to be financed by the riparian countries.¹⁸

While predicting its likely success is difficult, the study notes that it is clearly a product of the new order: it takes a programme approach, it is well connected to the regulatory framework that has emerged in the latter half of the 1990s, and it is framed within a 'modern' perspective on resource management. The major question is about its workability and whether it will be able to make itself 'useful' in the eyes of the riparian governments, or whether it will largely be seen as an obstacle to basin development. It may reflect some 'riparian country perspectives', but not all interest in all the individual states.

Hydropower strategy

In August 2001, the final draft of the *MRC Hydropower Strategy* was presented. It represents the sharpest possible contrast to the IMC's hydropower views as expressed in the revised Masterplan of 1987 (IMC, 1988). It constitutes a rethink of the potential of hydropower, moving away from views where large dams are seen as the 'temples of modernity' (as once phrased by Nehru in India), and where they shall be built even if they have to be subsidised to be profitable. The strategy makes explicit references to, and is to some extent based on, the work of the World Commission on Dams (WCD) and its recommendations. In that respect, the timing of the strategy is the best possible, emerging directly after the work of the WCD entered the public debate.

The work on the MRC Hydropower Strategy is based on the decision by the Joint Committee in 1998 that five principles should underlie such a strategy:

¹⁷ Our own experience is evidence of this. When carrying out previous research in relation to the work of the MRC, it was hard work to access MRC information and personnel. This time we were diligently assisted with this.

¹⁸ It was expressed to us that a broad process of 'riparianisation' of the work in the MRC is needed.

1. information exchange;
2. international cooperation;
3. integrated and overall planning of the mainstream and basin-wide sub-basins;
4. cumulative environmental as well as socio-economic impacts and the role of participation; and,
5. the encouragement of the private sector to join the development of the hydropower sector (MRC, 2001b).

The Hydropower Strategy is perhaps the most controversial of all sensitive issues in the Mekong cooperation. Hydropower expansion was commonly seen as the key to wholesale modernisation of the countries in the Basin (Hayath, 1966). In spite of this, the hydropower strategy does not shy away from controversy and sensitivities. It addresses, for instance, the debate over large dams, transboundary issues, water conflicts, resettlement strategies, fishery and biodiversity issues, weaknesses of the application of EIAs, alternative power supply, as well as the role of the private sector participation.

Its two overall principles are a far cry from the previous glorification of the role of hydropower:

Two guiding principles are advocated in order to improve the management of water resources. First, policies and activities should be formulated within the context of a comprehensive analytical framework that takes into account the interdependencies among sectors, protects aquatic ecosystems and fully recognises the social impacts. Second, efficiency in water management should be improved through greater reliance on decentralisation, user participation, and recognition of water as an economic good.

MRC, 2001b:17

The most crucial aspect of the strategy is its seven policy principles:

1. Hydropower potential constitutes a major natural resource to be considered for development.
2. Any hydropower development should acknowledge a multi-sector approach, where other uses and users of water are also considered.
3. Social and ecosystem concerns need to be taken into account when/if hydropower is developed.
4. Stakeholder participation should explicitly be applied.
5. The potential for demand side management, loss-reduction measures, and alternative energy costs should be assessed before moving forward with any hydropower project.
6. Internal and external costs should be fully taken into account, as should trade-offs between development and conservation.
7. Deregulation and private sector involvement should be encouraged and seen as a means to improve financing of hydropower projects.

The area in which this is applied is in Mekong mainstream activities and in ‘basin-wide sub-basins’ with ‘*noticeable cumulative impacts or involving two or more countries*’ (MRC, 2001b:iii).

However, at the end of the day, the MRC has no decision-making power and has to recognise that:

The notion of MRC as an international, basin-wide knowledge and planning body reflects the limits of its authority. Decision-making with respect to hydropower development and operations rests with the member countries, although MRC has a role to play in monitoring environmental impacts, especially those related to transboundary issues.

MRC, 2001b:26

The very key to the success of the MRC's hydropower strategy is thus whether regional environmental governance is allowed to emerge by the member countries or not; i.e. if there is such a thing as regional environmental governance, the MRC hydropower strategy is undoubtedly a major input into it. However, if the member countries choose not to engage with the MRC's programme elements, choosing instead to see the 1995 MRC Agreement as a purely legal document and the MRC hydropower strategy (as well as the Environment Programme) as something that one can follow or not, the MRC's hydropower strategy risks becoming an 'empty' shell.

Like the environment programme, the hydropower strategy is decisively trying to place itself within a modern resource management paradigm:

The MRC Hydropower Development Strategy/.../reflects the change which has taken place over the recent years regarding the role of MRC. It has shifted from being an organisation largely involved in matters related to specific hydropower projects, to having focus on providing information and policy advice on broader, basin-wide issues in the sector./.../It recognises the fields in which MRC as a river basin organisation can have a comparative advantage in assisting the riparian countries.

MRC, 2001b:v

Arguably, the 'softness' of the programme approach would not make sense in an environment where there is a structural conflict between the members – as is usually the case between up- and downstream riparian countries (cf. quote by Bernauer in Chapter 2) and in situations of resource scarcity. This is because it assumes that each country wants to be 'assisted' to do what is best for the whole basin. This also does not tally with the logic of the 'tragedy of the commons', referred to in Chapter 2, where exploitative overuse is foreseeable in situations where one actor gets the full benefit of the exploitation but shoulders only a part of the costs. Only where there is a coercive regulatory structure can such mismanagement be stopped, Hardin claims (cf. Chapter 2 and Hardin, 1968).

However, one critique of Hardin is that he over-emphasizes power aspects, disregarding that an evolution of voluntary structures and 'epistemic communities' can also regulate behaviour. 'Regimes' evolving in interdependent systems, as discussed in Chapter 2, are examples of such a voluntary attempt to self-regulate behaviour and prevent destructive exploitation of natural resources and ecosystem services. The WUP process, reportedly, bases itself on mutually beneficial processes, creating win-win-solutions, and aims (informally) to instil a sense of responsibility both with decision-makers and technicians. Such regimes are founded in respect for others' needs, or simply as a rationalisation that 'giving in' to one particular issue, 'pays back' another. Moving away from *project approach* – which has a direct attraction for the riparians because it might facilitate international financing and rapid construction of physical infrastructure perceived as necessary for industrialisation and economic growth – to a *programme approach* – which may or may not be perceived as providing value to the riparians – necessitates, *inter alia* that a politically benign process commences. Thus, consciously or not, it seems as if the MRC is basing its work on the assumption that some sort of regime is, or should be, evolving in the cooperation over the Mekong resources – and it might be right. However, in the short and medium term, it is primarily the role of the NMCs to convey the content of the MRC programmes to the national arena.

4.1.2 The role of the National Mekong Committees¹⁹

For MRC to be effective in its new role requires a strengthened policy-developing capacity as well as improved connections between the MRC and national the decision-making structures. The latter task, supposedly picked up by the National Mekong Committees, is crucial for ensuring

¹⁹ In each country there is a National Mekong Committee, which serves as the intermediary between the MRC and the regular state machinery with its decision-making capacity.

that policies and guidelines have maximum impact/significance. Although the ambition to strengthen the NMCs is decades ‘old’, the justification for doing so grows with the growing ambition of the MRC as a progressive agenda setter. Currently the NMCs are under-staffed and under-financed (Thailand being a possible exception), and possibly put in a structurally awkward position (particularly Thailand), making it difficult to influence the line ministries in any real sense.²⁰ The NMCs then constitute the weak link in the chain between MRC policy-making and national governance.²¹

In practice, the [NMCs’] role is generally recognized as an indispensable linkage in the water related development policy formulation and implementation, nevertheless their role and functions have never been formally provided for in the previous Statute and Joint Declaration.

Cambodia National Mekong Committee, 1999:1

This was recently recognised and a ‘self-evaluation’ has been performed by all NMCs in order to clarify and strengthen their role. From this review (fn 20) it emerges that the NMCs have:

- different and somewhat unclear positions;
- an ‘unusual’ position in the respective state machinery and therefore limited room to manoeuvre;
- little or no role in decision-making – this rests with ‘traditional’ line ministries;
- uneven capacity;
- insufficient capacity and status to forcefully disseminate the policies outlined by the MRC.

As long as the role of the NMCs is only to inform, their current position might be sufficient. However, if their role includes substantially influencing national bodies to comply with the policies worked out on regional level by MRCS (and sometimes the donors), it is a totally different matter. If they are to be expected to substantially go beyond that role in terms of public participation, they would have to be further supported or even reformed.

If it is the role of the NMCs to make sure that the work of the MRC is conveyed to its members and that this is done ‘against the will’ of respective state machinery, it is likely to fail; if it is someone else’s role to achieve this, or any other process that is expected to commence, it must be identified whose role and which processes these are. It must not be forgotten that the content of the programmes are regulatory, involving ‘uncomfortable’ or ‘costly’ components which many ministries and national plans would like to avoid or ignore, given the pressure to promote economic growth in the region. Finally, our interviews revealed that the various countries prefer – at times even making a case of – following the MRC Agreement as a legal document, but it is less clear whether the ‘softer’ policy dimensions of the Agreement – now being worked into programmes basically through the National committees (Box 4.2) – will be fully respected/appreciated. Ideally, there should also be other avenues for conveying the substance of the work produced in the MRC/S to the national arena. However, our interviews reveal surprisingly few such alternative channels. An obvious alternative is progressive development planning and continuous policy development within each state. Let us therefore briefly review the hydropower plans and environmental legislation in the four countries.

²⁰ The situation of the NMCs varies. However, it seems obvious from the series of evaluations that has been carried out of the role and activities of the NMCs (Thailand National MC, 2000; Cambodia National MC 1999; Lao National MC 1999; and Vietnam National MC 1999) that they currently cannot assume the role that is expected by regional level actors and demanded by the programme approach.

²¹ Tellingly, in its own ‘Organogram’, several arrows, indicating key relations, are pointing towards the NMCs, but no arrows leave the NMCs (MRC 2000d).

4.2 National government environmental policies for the Lower Mekong Basin²²

Despite the above discussion, the states are still the most influential actors in the international system (cf. Weiss, 1998). And although this creates a mismatch vis-à-vis the regional nature of major environmental problems, their policies have to be taken into account. Ultimately the national governments are the key decision-makers with regard to dam construction in the Se San and Sre Pok Basins. Below, each national government's perspectives on power development is outlined, and then their environmental and planning processes are reviewed.

4.2.1 Hydropower planning

In *Vietnam*, hydropower development is a significant part of the power sector agenda. A paper titled '*Development Strategy for the Power Sector in the Period 2001 to 2020*' presented at a workshop on '*Policies, Regulations, and Corporate Governance in Vietnam Energy Sector*' held by the World Bank and Ministry of Planning and Investment (MPI) in Hanoi, highlights hydropower as a key element in the power sector strategy (Dang, 2000). The growth in demand for power between 2001 and 2020 is estimated to be 10 to 11 percent annually and peak demand is expected to grow from 4,800 MW in 2000 to somewhere between 27,000 and 32,4000 MW in the same period. Approximate hydropower installed capacity, which at the end of 2001 was 4,100 MW, is expected to grow to 12,000–14,000 MW by 2020. Hydropower development to meet the projected increase in the demand for power is a clear policy of EVN. The bulk of this will be in northern Vietnam (including Son La, 3,600 MW and Hoa Binh 1,920 MW) but there are also plans to construct Se San 4 (340 MW), Se San 3 (273 MW), Kontum (220 MW), and Pleikrong (120 MW) (*ibid*).

The WCD report (WCD, 2000) raises concerns of conflicts of interest in such situations where demand forecasts have been overestimated and there has been an inherent bias towards large-scale projects to meet the wide gaps between the projected demand and installed capacity.²³ Such an approach inhibits an objective assessment of alternatives to meet demand. MPI is the key agency for preparing national development plans and allocating annual budgets to all sectors of government. Electricity of Vietnam (EVN), a state corporation under the Ministry of Industry, is a key actor and is related closely to dam construction. Other key ministries include the Ministry of Agriculture and Rural Development (MARD) and the Ministry of Science, Technology and Environment (MOSTE). Power sector planning and forecasts are undertaken by EVN, who are then also responsible for building and operating the supply infrastructure.

In *Cambodia*, hydropower has been viewed as a cheap and quick source of income, and rather ambitious development plans have been touted (Mareth, 1996). The Cambodian hydropower sector potential has been assessed many times. The latest full review was undertaken in 1995, and it concluded that Cambodia had the potential for 65 major hydropower projects, with a combined installed capacity of 5,300 to 8,135 MW. Total energy generation could be 41,400 GWh/year, of which 13,000 GWh/year would be generated in the north-east (CPEC & ACT, 1995). Timetables have been prepared on several occasions for enacting these plans, none of which have ever happened. The lack of personnel and financial resources make even the most modest plans seem too ambitious. For the last five years, however, hydropower visions have been scaled down as external funding becomes increasingly elusive. Complexities of major projects have also been

²² Most of the information in this section is based on SEI, (2001) *Strategic Environmental Framework for the Greater Mekong Subregion. Volume II: Regional Issues and Emerging Trends: environmental, socio-economic and institutional*, Stockholm Environment Institute and the Asian Development Bank, ADB RETA 5783.

²³ This was, for instance, the case for Thailand who realised its demand forecasts were grossly inaccurate when it was hit by the 'Asia Crisis' in 1997 and onwards, having direct consequences for the Lao PDR hydropower programme. It was also the case when the first Master Plan for the Lower Mekong Basin was constructed in the 1960s.

progressively visible, and the current short term agenda is focusing on a number of small- to medium-sized projects, of which most are outside the Mekong Basin.

The Ministry of Mines, Industry and Energy (MIME) has overall responsibility. However, major hydropower projects could also interest, and possibly involve, other ministries for legitimate, or other, reasons. Although the Se San Basin is historically viewed as the location of the first dams, international criticism of the Yali Falls, the withdrawal of international funding for Se San 3, and the demands made by the Mekong cooperation seem to have pushed Cambodia into prioritising a number of dams outside the Mekong Basin. Some of these dams are in western Battambang province bordering Thailand, which could possibly turn into a joint venture with Thailand. The Kirirom I, and the subsequent Kirirom III projects in southern Cambodia are other examples.²⁴ The former has the advantage of being situated in virtually uninhabited areas, indicating Cambodia's sensitivity to (possible) external critics. Kirirom I benefits from prior advanced planning and even some construction, carried out during the 1960s and 1970s, and both Kirirom projects draw heavily on Chinese technical and financial support.

For *Lao PDR*, maintaining good relations with neighbours and international actors is paramount. However, so is developing hydropower potential, or so it is generally understood in official circles. Relations with MRC are thus important (although relations with the ADB are reportedly even more important). The MRC Agreement, as a legal document with obligations for information and consultation, is taken seriously. Beyond that, the country's hydropower plans have hardly been altered by the work of the MRC so far. In 1996, the year before the 'Asia crisis', Lao PDR had 18 medium-sized hydropower plants in the pipeline, totalling 6,300 MW, of which 11 had been studied to feasibility level (Phanrajsavong, 1996). However, these plans all involved international interests in various BOT/BOOT arrangements and after the 'Asia crisis' the possibility of selling power to Thailand has appeared increasing unlikely. The Ministry of Industry draws up the plans and the government takes the decisions, but in reality market circumstances determine the projects and the order in which they will be pursued. Many possible projects are competing for attention, and it appears that the dam projects suggested for the Se San/Sre Pok Basins are of secondary importance for the moment, although they are certainly included in the long-term possibilities/plans.

The key supplier for power in *Thailand* is the EGAT (Electricity Generating Authority of Thailand). Total generation of energy by EGAT in 1998 was 92,100 GWh of which 6.4% was from hydropower. For the next 13-year period (to 2012), assuming a moderate economic recovery scenario, EGAT has a power development plan of bringing in 36 additional generation facilities (including facilities outside Thailand), totalling 22,600 MW of capacity (The Fifth Meeting of the GMS Electric Power Forum, 1998²⁵). This includes the following hydroelectric projects:

- Lam Takhong Pumped Storage Project (2 x 250 MW, + add. 2 x 250 MW later)
- Houay Ho Hydro Project, Laos 126 MW
- Khiridharn Pumped Storage #1, #2, #3 (3 x 220 MW)
- Unspecified hydro projects in Laos 1,600 MW
- Unspecified hydro projects in Laos 1,700 MW

In addition, there are plans for unspecified hydroprojects in Laos for up to 3,000 MW. A comparison of the 1997 and 1999 power development plans shows predicted postponements of

²⁴ Kirirom I has long been part of the planning of the Mekong cooperation in spite of actually being slightly outside the Basin. However, now that particular demands are being put on hydropower in the Mekong Basin, its advantage of being physically outside the basin and thereby avoiding certain requirements, is instead being stressed.

²⁵ Fifth Electric Power Forum, Greater Mekong Sub-region. *Conference Proceedings Review of Energy Demand and Supply*. Bangkok, ADB, December 1998.

about 1–4 years for some projects and cancellation of other projects. In particular, postponements are planned for:

- Lam Takhong Pumped Storage #3 and #4 (4 year delay, to 2007)
- Purchase of about 1500 MW of hydropower from Laos (2 year delay to 2008)
- Kiridharn Pumped Storage #1, #2 and #3 (4 year delay to 2009–2010)

Thailand has probably built all the hydropower stations on its own territory that are feasible in the Lower Mekong Basin. However, the role of Thailand is important in that it is the major purchaser of Lao PDR hydropower resources. It has an MoU with Lao PDR guaranteeing to buy 3,000 MW. However, the recession in Thailand has drastically reduced energy demands to a level where it does not really need the Lao PDR contribution. But after re-negotiations, Thailand still sticks to the quantity, but wants to negotiate the original price per unit energy, casting into further doubt the profitability of the concerned hydropower projects. Either way, in the short run, the Lao PDR projects in our geographical study area are not directly affected by this issue.

In the following sections the study discusses overarching national environmental legislation and the public institutions which implement it; environment and national economic/development planning; and project planning and environmental impact assessment. The focus of the discussion is on environmental policies, but since ‘environment’ cuts across sectoral boundaries, a range of policies related to natural resource use (fisheries, forestry etc. agriculture) and economic planning are also of relevance to environmental governance at the national level.

4.2.2 Legislation and institutions

All Lower Mekong Basin nations have overarching environmental legislation in place (Table 4.1). This being the case, comprehensive legislation is of limited use if the concerned institutions lack the political will and capacity to implement it (ADB, 2000a). Enforcement of legislation is thus a key issue. The extent to which environmental laws are achieving their aims varies in the Lower Mekong Basin. However, in general they are not the ultimate authority and the degree to which Lower Mekong Basin countries operate on systems other than the rule of formal law should not be underestimated (Dore, 2001).

Table 4.1 Key national environment legislation

Cambodia	Law on Environmental Protection and Natural Resource Management 1996 signed by the King, First Prime Minister, Second Prime Minister, and Minister of Environment, dated 24 December 1996.
Lao PDR	Environmental Protection Law No. 02/99, effective from 24 July 1999.
Thailand	National Environment Quality Enhancement and Protection Act 1992.
Vietnam	Law on National Environmental Protection passed 27 December 1993 by the National Assembly of the Socialist Republic of Vietnam, 9th Legislature, at its 4th Session and promulgated by the President by Order No. 29L/CTN, 10 January 1994.

In the early 1990s the Lower Mekong Basin countries took a major step by establishing ministry or national cabinet level co-ordinating organisations to address environmental issues (see Table 4.2). Vietnam and Thailand have the Ministry of Science, Technology and Environment (MOSTE); Cambodia has the Ministry of Environment (MOE) and Lao PDR has established the cabinet-level Science, Technology and Environment Agency. All these agencies are relatively new and weak (particularly in Cambodia and Lao PDR) compared to other ministries and agencies, both in terms of their institutional capacity (technical and resource related) and their jurisdiction and

mandate over natural resource planning, especially when there is a conflict with more powerful and well established ministries dealing with forestry, fisheries etc. (cf. Öjendal *et al.*, 2001). Their role and mandates are often unclear, contested, avoided or ignored by more powerful parts of government, the military or the private sector (Dore, 2001). Without enhanced political support for environmental agencies they will continue to struggle to achieve their environmental mandate.

All Lower Mekong Basin governments have overarching environment frameworks or action plans (see Table 4.3). In Cambodia, for example, the overarching policy document for environmental management is the National Environmental Action Plan 1998–2003 (NEAP) prepared under the auspices of the Ministry of Environment (MoE) between March 1995 and December 1997. Like other Lower Mekong Basin countries the processes leading up to these documents have been largely donor driven and in response to international initiatives such as Agenda 21, etc. These are political statements that filter into the overall development planning agenda only marginally.

Table 4.2 Environment ministries and agencies

Cambodia	Ministry of Environment (MoE).
Lao PDR	Prime Minister's Office containing Science Technology & Environment Agency (STEA).
Thailand	Ministry of Science Technology & Environment (MoSTE) containing Office of Environmental Policy & Planning (OEPP), National Environment Board (NEB).
Vietnam	Commission for Science Technology & Environment, Ministry of Science Technology & Environment (MoSTE) containing National Environment Agency, Ministry of Planning & Investment containing Department of Science Education & Environment(DOSTE).

Table 4.3 Key environment Action Plans / Frameworks

Cambodia	National Environmental Action Plan 1998-2003 (MoE).
Lao PDR	National Environmental Action Plan 1994 (STENO) and NEAP 2000 (STEA).
Thailand	Policy and Prospective Plan for National Environmental Quality Enhancement and Protection 1997-2017, and the Environmental Quality Management Plan 1999-2006 (both from NEB and OEPP in MoSTE).
Vietnam	National Plan for Environment & Sustainable Development 1991-2000 and the Draft National Strategy for Environment Protection 2001-2010 (NEA), but also the Instruction on the Strengthening of Environment Protection in the Period of Industrialisation and Modernisation, 1998 (Communist Party of Vietnam).

4.2.3 National Development Plans, project planning and environmental assessment

The National Development Plans (NDPs) are key instruments for guiding social and development planning in the Lower Mekong Basin countries and are typically produced by a central planning and investment ministry in partnership with other sectoral ministries. The NDPs are typically focused on pursuing economic growth and provide a framework for guiding national and international investments. There is usually little opportunity to integrate the environmental action plans into the NDP process. Efforts are limited to highlighting pertinent environmental concerns and hoping that these will over time filter into the political consciousness.

There have been isolated attempts to try and promote the consideration of environmental and social concerns at an earlier stage in the planning process where typically economic and fiscal considerations have dominated (ESCAP, 1999). Strategic Environmental Assessment (SEA) is a systematic process for evaluating the environmental impacts of a policy, programme or plan (PPP)

in order to ensure these are included at the earliest appropriate stage of decision-making or project planning, i.e., level with economic, social and fiscal considerations (Sadler and Verheem, 1996). SEA is globally increasingly becoming the norm in environmentally complex planning (cf. <http://www.dfaid-maeci.gc.ca/sustain/EnviroN/A/strategic/sea0299-e.asp>, 14/12 2001), and it is also being increasingly discussed and promoted in the Lower Mekong Basin. Several projects and initiatives have been initiated both by the ADB and the MRC, including the *ADB Reta 5783: Strategic Environmental Framework for the Greater Mekong Subregion* (ADB 2000a), and a project to develop guidelines for SEA by the MRC. Although riparians have reportedly responded positively, these are, however, isolated initiatives and SEA is so far rarely used in mainstream development planning. ‘Cumulative Impact Assessment’ (CIA) is another concept born out of the increasing recognition of ecosystem integrity and that there is a limit to how much ‘disturbances’ any particular ecosystem can absorb. The lack of these is a common critic of hydropower plans, arguing that impacts are not necessarily limited in time and space to the proximity of an intervention. This kind of assessment is rarely carried out, partly due to the fact that the knowledge of these ecological connections is still too scarce.

Environmental Impact Assessment (EIA) is the most prevalent tool for assessing and mitigating the impact of project activities and all Lower Mekong Basin countries have formal EIA processes in place. The scope of these processes varies among the countries. Of particular concern is the effectiveness of the EIA system, which is often treated as a formal step in the project planning system, rather than as for decision support, and has varying degrees of quality. For example in the cases of Pak Mun dam in Thailand and the Theun Hinboun project in Lao PDR, the quality of the EIA has been criticised by the NGO community and has been found to be below international standards (WCD, 2000). This is partly due to the continuing perception of EIA as being an impediment or at least a hindrance to the development planners, who are a more powerful lobby than the environmentalists. Others argue that the process is inherently flawed since EIAs come very late in the project planning process and is a static one-off exercise. The level and effectiveness of public involvement during EIA has also come under serious criticism in several cases, as mentioned above (Lohani et al., 1997). And as was pointed out, still nobody seriously applies SEA, and even less CIA, which may be more pertinent tools in an ecologically interdependent and sensitive system like the Lower Mekong Basin.

The Yali Falls incident has brought to the forefront the issue of commitment to basin-wide EIA mechanisms (where transboundary impacts are analysed, mitigated and compensated), and the harmonisation of EIA processes among the Lower Mekong Basin countries. This is a complicated issue since it raises concerns of sovereignty, highlights weak and inconsistent EIA processes in some member countries, and it also highlights political commitment to particular development paradigms (Dore, 2001, cf. Chapter 6).

4.3 The ADB as a ‘policy maker’ in the Lower Mekong Basin

The 1990s saw the opening up of the Lower Mekong Basin and the arrival of a range of new actors. Most significant of these ‘new’ initiatives was (and is) the ADB’s GMS Programme, which dates from 1992.²⁶ This came to rival the MC/IMC’s role as a regional coordinating body, and there is still a sort of competition between the two; not necessarily in terms of activities, but rather in terms of riparian attention, donor appreciation, and overall agenda setting for the development interventions in the Lower Mekong Basin. In both financial flows and political

²⁶ The *GMS Economic Cooperation Programme* was initiated by the ADB in 1992. The Bank cites promotion of subregional cooperation and strengthening economic linkages among the member countries as the *raison d'être* for initiating the programme. The ultimate objective of the Programme is to facilitate sustainable economic growth and to improve the standard of living of the people in the subregion (ADB, 1996). It aims to: i) realise and enhance development opportunities; ii) encourage trade and investment among GMS countries; iii) resolve or mitigate cross-border problems; and iv) meet common resource and policy needs.

commitment, the GMS has drawn the lion's share of attention from regional actors in terms of development interventions in the Mekong Basin. Due primarily to strong Japanese support, ADB has, for instance, been particularly successful in attracting top-level engagement from all six countries in the Mekong Basin.

The Bank sees itself as a 'facilitator' of the process of hydropower development and aims to provide technical and logistical support, but also argues that the private sector has to make the bulk of investments in joint investment conglomerates or through various BOT and BOOT formulas.²⁷ This is (has been) problematic from at least two points of view. The first is, as critics point out, that these are two major institutions pursuing the same basic development paradigm, acting in concert, in order to realise a major hydropower agenda, and together serving to marginalise resistance to this (Watershed, various issues). The other problem – operating from a point of departure believing in the progressive role of the MRC – is that ADB in its project orientation has diverted attention from the work to establish regional norms and procedures for environmental protection. This has drawn severe criticism from various advocacy and environmental organisations in the region and elsewhere, and has reportedly served to dilute the influence of the MRC/S. The former type of criticism typically emanates from NGOs and environment organisations, whereas the latter appears in interviews with people working in, or close to, the MRC.

Consequently, the ADB in general and the GMS Programme in particular have come under criticism from NGOs who argue that the market-led paradigm of economic growth that the GMS Programme promotes benefits primarily the private sector and export-oriented industries. Their contention is that 'trickle down growth' does not work. Large transportation (roads, bridges, navigation facilities, etc.) and hydropower projects are also drawing the criticism that displaced communities are bearing most of the costs whilst not receiving any benefits. However, the ADB's working methods seem to be altering. In November 1999 it announced a change in its focus from being primarily a lending institution to one that would '*help eradicate extreme poverty from Asia and the Pacific*' (ADB, 1999a). An internal impact evaluation study of the GMS Programme also emphasised the need for co-ordination mechanisms with the MRC, and the ADB and MRC have since signed a MoU, which may serve to better communication, coordination, and cooperation.

From being the only international financing institution (IFI) still financing major dams, the ADB has now lowered its profile in the hydropower sector. Moreover, it is currently developing a new environment policy where *poverty* occupies a central role and is given a direct connection to 'Processes of Environmental Governance'. Underlying the ADB's view on 'environmental governance' are five principles:

1. access to information;
2. public participation;
3. access to a 'second opinion' if ADB projects malfunction;
4. environmental projects should go through a 'due process' in terms of public governance; and
5. increased internal and external monitoring.

In essence, this new focus stresses accountability, transparency, participation and gender equality, as well as strategic environmental issues – such as introducing a process of SEA, (ADB, 2001). It also explicitly seems to change to policy in two controversial issues in our context. Firstly, significant transboundary effects are to be avoided, and, secondly, the poor are to be

²⁷ BOT is 'Build-Operate-Transfer' and BOOT is 'Build-Operate-Own-Transfer'. Both are inventions which involve the private sector but with a certain long term state involvement. Theun Hinboun in Lao PDR has recently been built under such formula and is considered a model in some quarters.

'categorically better off' (ADB 2001:12). Both, if applied to the Se San Basin, would produce a different outcome than what we have seen so far.

In ADB's view, the Asian environment has been seriously degraded over the last couple of decades.

The level and rapidity of environmental degradation raises serious concerns about the sustainability of Asia's economic growth. Even more importantly, as poverty and environmental degradation are elements of a spiral causation, positive as well as negative, it points to the need to orient development efforts towards enhancing the environmental resources available to the poor.

ADB, 2001:6

This can be attributed to two major policy mistakes. Firstly, as for many other countries, historically and globally, environmental protection was never a priority for national level decision-makers, with 'grow now, clean up later' being the main philosophy. Secondly, the ADB claims, policies and laws were too strict and therefore not properly implemented (ADB, 2001:6). While driving home an important point, it is somewhat ironic that ADB states this, being highly susceptible to the same kind of criticism.²⁸

Another area of criticism is that although the ADB acknowledges the complex, combined, and regional nature of environmental problems, it does not attempt to facilitate *regional* governance responses. Even for problems such as air pollution or river degradation – problems which do not respect political borders – the ADB makes no mention of coordinated regional governance responses, but instead urges individual states to deal with the problem. This is of course the 'easy way out', but, arguably, also a reason for the initial problem. In other words, this state-by-state approach creates an environmental security dilemma where blame, effort and responsibility can always be laid somewhere else, and tough decisions can be delayed, postponed or brushed away, or simply dominated by self-interested national politics.

4.3.1 Facilitator or promoter?

The ADB Power sector has within the umbrella of the GMS Programme, funded two major preliminary technical and economic feasibility studies of hydropower projects (the initial inventory study, ADB 1994, and the SKSSNT River Basin Hydropower Study, Halcrow 1998), which have influenced the site selection process in the Se San and Sre Pok Basins. While environmental and social issues were considered in these studies, the primary evaluation criteria focused on economic and technical feasibility. The final selection in the Halcrow study of two projects in Vietnam, two in Cambodia, and two on the Se San was seemingly more motivated by political considerations (cf. Chapter 5). It can be argued that once a proposed project has passed the initial preliminary technical and economic analysis, the momentum and interest of strong proponents such as the government, the ADB, and the technical consultants, prevails over the results of further assessments (cf. WCD, 2000). These studies also tend to drive and influence the selection of dams as the only power generation option. Other sources of power and/or demand-side management are not considered for meeting the power demand forecasts. These studies thus go far beyond being 'technical' studies.

The ADB had considered co-financing the Se San 3 project, but subsequently withdrew. The reasons for this are open to speculation, but is likely to be based on a negative response from the Vietnamese Government to the rising environmental demands of the ADB, and the increasing criticism this kind of project draws (cf. Chapter 5).

²⁸ For instance, according to footnote 26, the GMS Programme should *inter alia* serve to 'mitigate cross-border problems'. Yet its initial support for the development of Se San 3, for example, served to *enhance* cross-border problems and it took virtually no responsibility for the problems arising out of the Yali Falls incident.

It is obvious that the ADB exerts considerably more influence on the decision process than it acknowledges. In the near future the ADB GMS Programme is, however, likely to play a more limited role in the financing of hydropower development, primarily due to continued criticism of the severe environmental and social impacts of dam projects, its more sensitive environmental approach, and also due to the decrease in the demand for power in the sub-region after the ‘Asia’ crisis in Thailand (GMS Assistance Plan 2001 to 2003, ADB, 2000). A ‘Strategy for Hydropower Development in the GMS’ is, however, in the pipeline (*ibid*).

4.4 The role of consultancy firms

The influence and role of large consultancy firms from developed countries in the hydropower industry in developing countries, has been increasingly coming under scrutiny (cf. Usher, 1997). For example, two major technical studies were undertaken in Vietnam by consultancy firms, funded jointly by Sida and Norad. These are:

1. The Masterplan for Se San Basin and Feasibility Study of Se San 3 Hydropower Project undertaken by a consortium of SWECO International (Swedish company) and Statkraft Engineering (a Norwegian company).
2. The National Hydropower Plan (NHP) which is still ongoing and being undertaken by SWECO, Statkraft and Norplan A.S. (a Norwegian company).

These companies are closely linked to the hydropower industry in Norway and Sweden, an industry once thriving in Scandinavia, but now largely surviving through international ventures (Geary, 1997). Moreover, consultancy has turned into an important dimension for this industry. The combination of playing a part in the planning process whilst at the same time being involved in implementation could be seen as morally questionable.²⁹

However, proponents of these studies argue that in the long run the development of hydropower potential in countries like Vietnam is inevitable in order to meet the energy demands of a growing economy; to not meet them would be equivalent to stifling development. They also argue that involving consultancy firms from developed countries with higher standards and expertise in environmental and social impact assessment improves the ‘sustainability’ of such development. The increasing accountability of the bilateral agencies funding these studies to NGOs and interest groups in their home countries also increases the pressure for better performance by the consultants. In countries such as Lao PDR and Vietnam, where there are few NGOs, this becomes increasingly important.

However, in smaller and poorer countries such as Lao PDR and Cambodia, there is very limited capacity to actually absorb and manage the input of the consultants in any other sense than *carte blanche* acceptance; on occasions, the consultancy reports are actually made into national plans. Moreover, as these countries slowly open up to private investment in the hydropower sector, the absence of a regulatory framework and capacity to monitor and regulate private sector interests will expose them to the risk of ‘selling themselves short’. When the system does not provide checks and balances, they are at the ‘mercy’ of the consultants who represent private sector interests and are well-positioned to influence the decision-making process in favour of their own. The opposite may also appear: authoritarian regimes (try to) ‘order’ suitable technical results. Low levels of accountability among the government decision-makers, in turn, allow the political elite’s influence to grow at the cost of local people and the natural resources they depend

²⁹ In consultancy work in the development sector it is a generally applied rule that you are disqualified from being involved in implementation if you have played a major part in previous planning/appraising. For some reason this does not seem to apply to the hydropower sector. It should be noted, however, that ultimate responsibility for this must rest with those hiring the consultants, rather than the consultants themselves.

upon. Either way, in this process there is very little regard for environmental concerns (besides a relatively easily-manipulated EIA process) and even less for regional concerns.

However, even when there are no vested interests, criteria for what is ‘good’ and what constitutes ‘development’, consultants hired in this context tend to be solidly rooted in either technical/economic considerations or simply in a straightforward version of the modernisation paradigm.

At the same time, however, consultancy firms possess, organise and provide valuable skills and competence, and without them quality would be lost. This seems, however, to us to be more of a regulatory problem, where the purchasers of their services must be more accountable and apply higher standards, and funds need to be made available for scrutinising EIAs in some detail.

4.5 The role of bilateral donors

Bilateral aid assistance is often criticised for pushing donor-driven visions and agendas and resulting in weak levels of ownership by recipient countries. Such agendas are often ‘progressive’ in their focus on environmental protection, and are often beyond the immediate development priority of the recipient developing country. The MRCS – wholly donor financed – could perhaps be seen as an example of this. In other instances the assistance agenda focuses on sectors where the donor country has an established expertise base and commercial interest in promoting technology and equipment.

Donors sometimes support planning, rather than construction, in order to avoid being criticised for supporting hydropower projects. Clearly, however, without planning support, construction would not be feasible. In the case of Vietnam described above, for instance, joint funding from Sida and Norad supported the two major studies that influenced (and still influence) site selection in the Se San Basin. These studies are now likely to result in the construction of mainstream dams on the Se San River. In Cambodia, there is a conscious strategy to look for donors who are willing to fund feasibility studies as a first step towards construction (cf. Chapter 5). Lao PDR has managed to get at least 11 projects through the feasibility study stage.

It should, moreover, be noted that bilateral donors can give out ambiguous messages. For instance, Sida has financed a number of studies which have facilitated subsequent dam building, while on other occasions denouncing hydropower as a development activity.³⁰ This is, however, a reflection of the simple truth that Sida and others are not monoliths, but rather organic organisations with many different agendas. This is often difficult to understand/accept by actors in the region, be they NGOs or government representatives. Finally, bilaterals are, above all, sensitive to opinion in their native countries, and are consequently becoming less and less interested in financing controversial hydropower projects.

The only current major exception to this rule is bilateral aid from Japan through JICA, who still seems interested in financing dam construction on a broad scale. Although financing is not yet cleared, it seems as if JICA is interested in engaging in hydropower development in a major scale in Vietnam.³¹ Vietnam’s national plan for four or five dams in the Upper Se San would have severe difficulties accessing any other international financing. Drawing on recent experience in Cambodia, China may be a future financer/constructor of major dams.

³⁰ For instance, at the early 1990s, Sweden/Sida informally promised the emerging Cambodian government that it would fund (part of) the Kirirom dam project. However, when this should be realised, Sweden backed down from that commitment, the prime reason being that it would consume the entire aid budget for the country and a major share of the Sida personnel responsible for developing development assistance program for Cambodia sharply rejected the idea that one hydropower project would constitute the prioritised need for the country. This latter opinion was subsequently also supported at decision-making level in Stockholm (author’s communication with Sida personnel, 1994/1995).

³¹ In an announcement on April 11 2001, it appeared that the Japanese Government, in a bilateral agreement, is prepared to fund the Se San 3 (‘Voice of Vietnam web site’, Hanoi, in Vietnamese 11 Apr 01). See Section 5.3.1 for more detail.

4.6 The role of civil society

'Participation' and 'democracy' have been two of the dominating catchwords in the development debate in the last decade. With the exception of Thailand, and in terms of the engagement of civil society in hydropower planning, these trends have not made much of a difference in the Lower Mekong Basin. In Vietnam, Lao PDR and Cambodia, there are few NGOs in the field and there is little opportunity for local protests to reach political significance, and hence to influence decision-making.

However, there is a growing environmental movement in the entire region. This originally emanated from Thailand, supported by international NGOs such as OXFAM and fuelled by controversial projects (e.g. the Pak Mun). This movement is also well connected to major environmental organisations such as the International Rivers Network (IRN). WCD's assessment of the Pak Mun (cf. WCD, 2000) has encouraged further public resistance to hydropower projects.³² In various combinations, initiatives, interests, and resources from these groups have produced a number of critical studies on the current development in the Se San Basin. This kind of advocacy is definitely currently affecting the dynamics of hydropower planning in the Se San Basin. In particular, the combination of local NGOs with their local knowledge, working in tandem with international NGOs with their resources and international networks, has proven 'effective'.

However, in relation to the Se San/Sre Pok Basins, both in Cambodia and Vietnam, the people likely to be directly affected are largely highlanders in remote areas with little, or no, impact on the political decision-making, or even inadequate information of what is going on. Any major resistance against dam-building is not likely to come from these politically marginal groups in the foreseeable future. As will be shown in Chapter 6, hydropower is neither developed for improving the local communities' situation, nor are local communities, at large, benefiting from it.

³² Pak Mun is a hydropower project on the Mun River in north-eastern Thailand. It has been subject to fierce criticism from NGOs and local grassroots organisations since at least the early 1990s. It was observed in the WCD process as a hydropower project that probably would never have been built if there had been more rigorous preparatory work carried out. It is noted that like many other hydropower projects, it became far more expensive than expected, it delivers less energy than foreseen, and the impact on local livelihoods has been more severe than projected (or admitted).

5 The Evolution of Hydropower Development in the Se San River Basin

As seen in previous chapters, the case study area (the Se San and Sre Pok Basins) was earmarked for hydropower interventions in the earliest plans. This was further reinforced, but also impeded, by the political events in the 1960s and 1970s. Today we find a similarly contradictory process – this time with those interested in constructing hydropower stations being increasingly opposed by environmental proponents, putting pressure on good environmental governance. Let us see how this issue has been dealt with on a regional level so far, taking a process-oriented and historical perspective.

Let us, however, first review the basic conditions of the basin in focus here.

5.1 A description of the Se San/Sre Pok Basins

Approximately 90,000 people live in the middle Se San Basin (see Box 5.1 for a description) in Cambodia and Vietnam downstream from the Yali Falls Dam (Halcrow, 1998). In 1995 there were approximately 18,000 people from the Jarai, Tampuan, Brao, Kreung, Kachok, Brao-Kavet, Lao PDR and Chinese ethnic groups living along the Se San River in Cambodia's Ratanakiri Province alone (Baird, 1995). The vast majority of these are indigenous peoples who engage in subsistence farming as their main occupation. Population growth, including in-migration, is rapid, at least on the Cambodian side.

Box 5.1 Physical features of the Se San/Sre Pok Basin

The Se San River is one of the largest tributaries of the Mekong River. It originates in the Central Highlands of Vietnam and southern Lao PDR, flowing through mountainous areas in Vietnam's Dak Lak, Gia Lai and Kon Tum Provinces before entering north-east Cambodia, where it moves into relatively lowland areas, eventually converging with the Sre Pok River, another large tributary of the Mekong River. The Se San Basin has a drainage area of 17,100 km², including 11,000 km² in Vietnam and 6,100 km² in Cambodia (ADB, 1994). The Se San and Sre Pok Rivers contribute 10.4 % of the flow of the Mekong River at Stung Treng town, and the Se San, Sre Pok and Se Kong Rivers provide 16.7 % of the Mekong's flow at the provincial capital of Kratie, which is downstream from Stung Treng town.

The Se San basin is generally mountainous but there are two large plains: the high plateau in Vietnam located at about 500-600 m above sea level which stretches from Kontum southward to Ban Me Thout in the Sre Pok basin, and the wide valley of the Se San around Voeun Sai in Cambodia. The Sre Pok basin is one of the two big tributaries of the Se San, which joins the Se San about 35 km upstream of Stung Treng. The catchment area of the Sre Pok measures about 29,450 km² of which about 18,200 km² is located in Vietnam and the remainder in Cambodia. The catchment of the Sre Pok is generally rather flat but there are some mountainous areas on the eastern and southern fringes of the catchment area. The part of the Sre Pok catchment area in Cambodia is scarcely populated while the Vietnamese part is more densely populated.

Sources: ADB, 1994 and Halcrow, 1998

The Se San River is crucial for local people's livelihoods, social lives and social interaction. As we have come to learn from many other places – such as Narmada in India, Bakun on Borneo, and Pak Mun in Thailand – the river means more for the people than just a means for survival. The river is intrinsically integrated into the cosmology of the local culture and consequently provides a core feature of life as they know it. Resettlement is thus no clinical manoeuvre, change of trade no easy shift, and change of location rarely voluntary. In the resistance to the Narmada project, for instance, people in the struggle vowed to drown at their homes, rather than move.

The river also supports a rich variety of plant and animal life. The river and its habitats also provide local people with water for drinking and washing, dyes, fibre and wood. Farmers rely on it for irrigating their crops. This is particularly relevant on the Cambodian side, where livelihoods

almost totally rely on access to natural resources from aquate and terrestrial ecosystems. The activities surrounding fishing and gathering are often inextricably linked to specific cultural practices and thus are key components of entire value systems. By most accounts this area is sparsely populated. However, given the current livelihood systems, to be sustainable in terms of biodiversity, large areas need to be kept intact. Already, the area suffers, *inter alia*, from shrinking forest cover, soil erosion, water quality degradation, fish decline and disease, large mammal extinctions, general biodiversity reductions and micro-climatic changes (Himel, 1996; cf. Öjendal *et al*, 2001). Thus even before any dams are constructed the ecological system is under severe environmental stress.

5.2 The historical process of project identification

The report by the Mekong Reconnaissance Team in 1961 (see Table 5.5) was perhaps the report that put the Se San/Sre Pok Basins firmly on the hydropower agenda. Even though this report did little more than point out that there was potential for hydropower development, it meant that these possible projects had a natural role in the process that resulted in the first Masterplan of 1970.

In the report published in 1970 (Mekong Secretariat, 1970), the Mekong Secretariat identified 16 possible hydropower development sites on the Se San River Basin, including five projects in Cambodia, ten in Vietnam, and one international project. Since nobody at the time considered ‘cumulative environmental impacts’, only one project was considered to be ‘international’ – the Upper Se San 4 and the Dak Hondrai Project – which was planned to be shared between Cambodia and Vietnam. Vietnam would – it was reasoned – benefit from hydropower and Cambodia from flood control (see Map 5.1).

In the Sre Pok Basin, a further 15 sites were identified, including five sites in Cambodia, nine in Vietnam and one international project (Mekong Secretariat 1970). The latter, Sre Pok 5, a power project, was to be shared between Cambodia and Vietnam. It would generate electricity for Vietnam, and Cambodia could benefit from irrigation. At this stage, concerns over hydropower construction related to issues of security and long-term stability, rather than the environmental impact, were the key restraints. Another uncertainty with hydropower was of course obtaining finance for individual projects.³³

During the latter half of the 1970s, planning came to a halt for political reasons (see Box 3.1). However, following the re-launch of the Mekong Committee in its interim form, the previous plans for the Se San were revised by a consultancy firm (WATCO, 1984) in collaboration with the Interim Mekong Committee (IMC).³⁴ This study identified six hydropower projects and five irrigation projects in the upper Se San in Vietnam, and three hydropower projects and one irrigation project in Cambodia. Similarly, in the Sre Pok Basin, the study identified 12 hydropower projects and 12 irrigation projects. It claimed that two-thirds of the power potential was located in the upper Sre Pok in Vietnam, while nearly 80% of the irrigation potential was located in Cambodia (see Table 5.1). This study was the authoritative study for hydropower planning in the Lower Mekong Basin until the mid-1990s when the ADB injected new energy into this process.

The WATCO study was a desk study which built on the work of the Mekong Secretariat in 1970. It aimed at providing more focused information of the hydropower sites in the Lower Mekong Basin – such as the ones in the Se San/Sre Pok Basins – about which sites were suitable

³³ At the time, planning and technical reports to a large extent served as ‘advertising’ rather than as critical studies with a regulatory ambition and an open-ended outcome. For instance, the annual work programme of the IMC from the early 1980s and onwards was largely a menu aimed at ‘selling’ projects to funders; internally, there was reportedly a battle to get one’s project in the Annual Workplan (which in essence was a ‘non-Workplan’ because listed here were the projects that were *not* funded, but sought funding).

³⁴ A number of reports were carried out under different auspices and with different mandates, reaching different conclusions, often without referring to each other. See Table 5.1, Table 5.5, and Table 5.6 for a record of these studies.

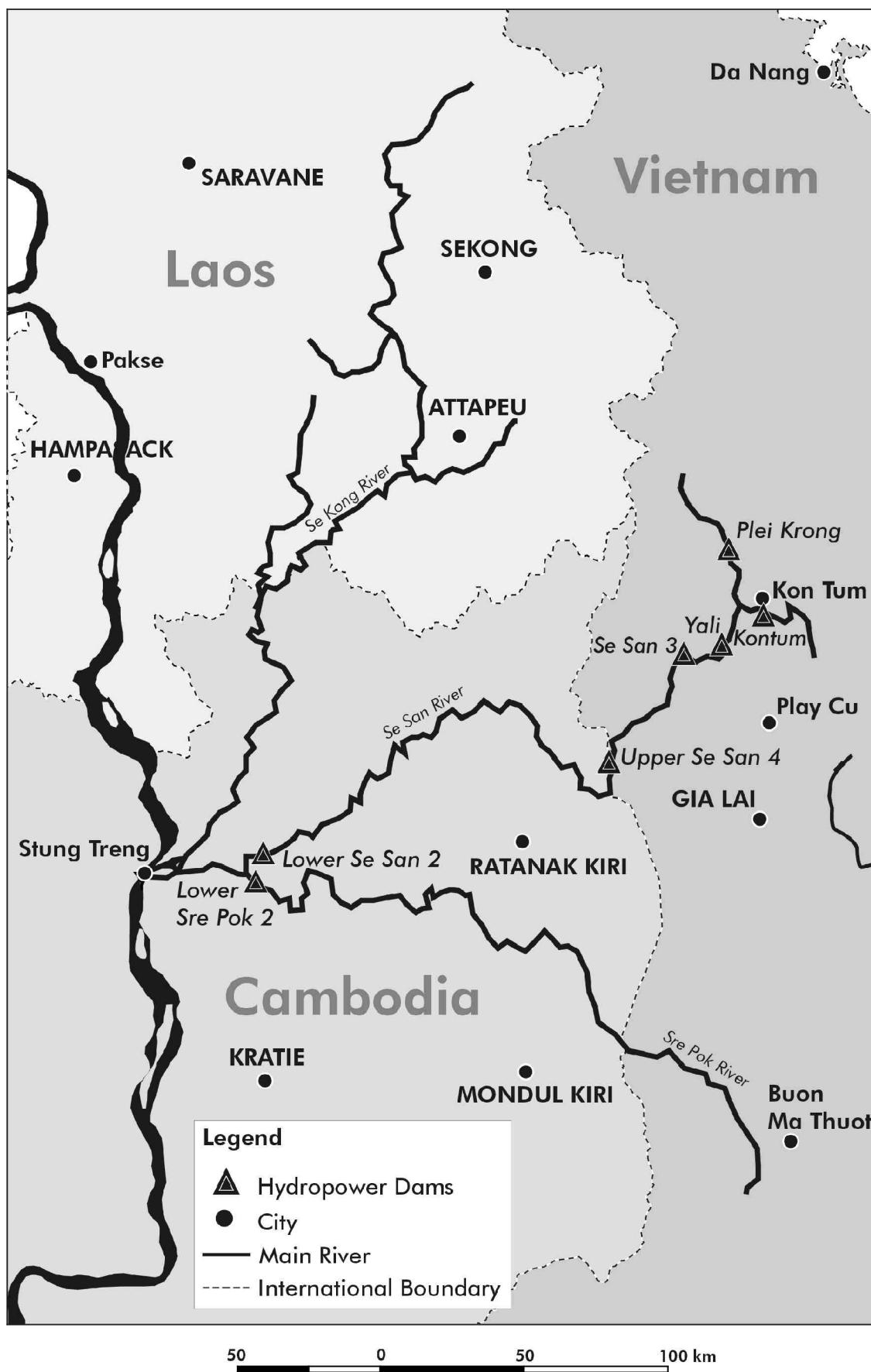
for dam construction. It also added strategic information such as which potential future projects could generate electricity for export to Thailand and Vietnam and power for urban areas such as Phnom Penh. Few, if any, environmental, livelihood, and resettlement concerns were included in this report.

Table 5.1. Hydropower schemes proposed by MS, 1970 and WATCO, 1984

Se San Basin		Sre Pok Basin	
Schemes proposed by Mekong Secretariat (1970)	Schemes proposed by WATCO (1984)	Schemes proposed by Mekong Secretariat (1970)	Schemes proposed by WATCO (1984)
Lower Se San no.1	Not recommended	Lower Sre Pok 3	Lower Sre Pok 3
Lower Se San 2+Lower Sre Pok no.2	Not recommended	Prek Santai	Prek Santai
Lower Se San 3	Lower Se San no.3	Ya Lop	Ya Lop
Prek Liang no.1	Prek Liang no.1	Prek Drang	Prek Drang
Prek Liang no.2	Prek Liang no.2	Prek Chbar	Prek Chbar
Upper Se San 4+Dak Hodrai	Upper Se San 4	Upper Sre Pok 5	Upper Sre Pok 5
Upper Se San 3	Upper Se San no.3	Not recommended	Upper Sre Pok 4
Yali Falls	Yali Falls	Upper Sre Pok 3	Upper Sre Pok 3
Plei Krong	PLei Krong	Upper Sre Pok 2	Upper Sre Pok 2
Dak Bla no.1	Dak Bla no.1	Upper Sre Pok 1	Upper Sre Pok 1
Dak Bla no.2	Dak Bla no.2	Krong Kno	Krong Kno
Kontum area	Kontum	Upper Krong Buk	Upper Krong Buk
Tanaeng Prong area	Taneang Prong	Lower Krong Buk	Lower Krong Buk
Dak Potong area	Dak Potong	Krong Pach	Krong Pach
Pleiku South	Plei Ku	Prek Krieng 1	Dak N'tao
		Not recommended	O Phlai
		Not recommended	Prek Por
		Not recommended	Prek Rwei
		Ya Hleo	Ya Hleo
		Upper Prek Te	Upper Prek Te
		Lower Prek Te	Lower Prek Te
		Prek Kampi	Prek Kampi
		Prek Chhlong	Prek Chhlong

Source: MS, 1970; WATCO, 1984

Map 5.1 Planned hydropower projects in the Se San/ Sre Pok Basin Area



In the Se Kong River Basin – a sub-basin of the Se San – the report identified 14 hydropower projects, four of which had potential for irrigation, all located in the Laotian part of the Basin (WATCO, 1984). This study thus demonstrates that there is potential for hydropower development in the Upper Se San in Vietnam and Upper Se Kong in Lao PDR, while Cambodia has less overall hydropower potential. Still, some sites were identified for hydropower in Cambodia. These projects, as for the others in the WATCO report, were identified at a time of insecurity in this area, so the studies had only scant knowledge of the proposed projects and localities involved. It seems that few of these projects were realistic and with the exception of the Yali Falls, none of the projects from this study have materialised.

As stated above, the WATCO study mainly reviewed the projects in existing plans, and did not recommend new projects. As a dam advocate (cf. footnote 33), the study largely served to provide arguments to support dams and pave the way for more investments in dams in the region. Most of the previously identified projects were also recommended by WATCO (Table 5.1). Those not recommended were discarded for economic reasons. At the time, there was no EIA/SEA study that could be used as an indicator to judge the quality of the projects, thus there were not really any grounds other than purely economic (and physical) ones that could be considered. The WATCO report thus re-started the process of hydropower planning; its recommendation on Yali Falls was followed up by a Sida-funded study on the prospects for Yali Falls (SWEKO, 1985), a critical input for getting that process moving.

Throughout the 1980s the situation was at a stalemate in terms of major hydropower projects (the Yali Falls Dam being the exception). However, in the early 1990s, the Vietnamese Government updated the plans for the Upper Se San and some of the schemes were proposed for construction (Nippon Koei, 1990). This coincided nicely with the emergence of the ADB based GMS Programme (see footnote 26), which added energy, inspiration, and financial start-up resources to major infrastructure programmes. In the early 1990s, the ADB funded a study on the Subregional Energy Sector as a part of this programme (ADB, 1994). It was completed in November 1994 and it strongly recommended hydropower development in the Se San, Se Kong and Sre Pok Basins. Six projects identified by the study related to hydropower development, five for basin and feasibility studies and one implementation project. This was followed up in 1997, when the ADB funded the Se Kong, Se San and Nam Theun (SKSSNT) River Basin Hydropower Study, conducted by Sir William Halcrow & Partners, Ltd., consulting engineers (Halcrow, 1998). The MRC took part in the project's multi-partite meetings and took a strong political interest, although it provided only marginal operational input.

The SKSSNT study became a key study in the hydropower site selection process. It aimed, following the recommendation in the ADB sector study mentioned above and the ADB's (then) interest in hydropower development, to select at least six dam sites in the three river basins: Se Kong, Se San and Nam Theun. It was clear from the beginning that this study was addressing controversial areas and was conducted under political pressure from various directions. Our information indicates that different perspectives were at conflict throughout this study. For instance, technical aspects came into conflict with various political agendas, and environmental concerns emerged in opposition to hydropower-biased interests. It also seems to be the case that the final report only weakly reflects the social and – in particular – environmental work that actually was done. For instance, a method for carrying out cumulative impact assessment was actually developed, but this is not emphasised in the final report, neither are the consequences of this work fully utilised. It is not clear to us on which grounds these perspectives were thinned out or why.

The SKSSNT study also developed an index for weighting the economics of the projects, and their social and environmental impacts in order to select them with greater sensitivity (Table 5.2). This constitutes definitive progress compared to how these studies used to be done, which also is

in line with global trends (cf. WCD 2000). However, from a social science perspective questions arise. For instance, why are social aspects given a weight of 25%, and the environmental impact a weight of 23%? It is also hard to understand how social and environmental impacts can be separated from each other, and – according to our information in Chapter Six – this analysis seems to have been done with relatively little formal socioeconomic survey research in the field. Given the utterly low degree of previous academic research and the scarce general socioeconomic information, there was virtually no base-line information for the communities living in the portion of these watersheds in Cambodia and Lao PDR.

The SKSSNT study was completed in two phases and studied a total of 37 potential hydropower sites in the three basins.³⁵ The 11 highest ranked projects (of the ‘available’ ones) were then selected (Table 5.3), from which six dams were selected for further study. Here the political issues of a three-country study became apparent. Reportedly, the deputy director of the Ministry of Industry’s Hydropower Office in Vientiane informed meeting participants informally that ‘It would be very embarrassing if Laos were to get more projects than either of the other two countries.’ Thus it was that two of six finalists were selected from Cambodia, despite all of the Cambodian sites being – technically – non-economic. The final six were Se San 3 and Thoung Kontum, in Vietnam, Lower Sre Pok 2 and Se San 4 in Cambodia, and Xe Kaman 3 and Nam Kong 1 in Lao PDR. These proposed schemes were formally prioritised largely because of their high potential for electricity generation and because their economic and financial benefits were more favourable than the other proposed schemes (Halcrow, 1998, Vol. I).

Table 5.2 The weighting of the various schemes

Scheme Name	Economic preparedness, local planning, score Maximum 52%	Social Score Maximum 25%	Environmental Score Maximum 23%	Total Score Maximum 100%	Comment
Se San 3	40.7	23.8	16.6	81.0	
Xe Katam	33.5	24.8	21.6	79.8	MOU
Se San 4	37.2	16.5	17.7	71.5	
Houay L.G	29.1	24.3	14.3	67.6	
Upper Kontum	35.1	16.5	15.9	67.4	
Nam Theun 1	41.1	15.8	10.6	67.4	MOU
Lower Sre Pok 2	21.0	23.8	16.8	61.5	
Lower Se San 2	19.9	20.5	16.3	56.7	
Xe Kaman 3	23.5	11.5	20.9	55.9	
Nam Kong 1	21.0	16.0	15.9	52.9	
Xe Kaman 1	29.3	13.3	9.4	52.0	MOU
Se Kong 4	27.3	14.0	7.6	48.9	
Se Kong 5	21.8	12.3	10.8	44.8	

Source: Halcrow, 1998

Note: MOU indicates that the schemes are already covered by a Memorandum of Understanding and are therefore in a more advanced stage of development.

³⁵ Reportedly, half a dozen schemes in Lao PDR were either already under construction or were under contract. The engineering leadership of the SKSSNT study unilaterally decided to drop these sites from the study. This decision could be taken as a reflection of a pro-hydro construction bias of the study. The Halcrow engineers were, reportedly, not interested in studying any site that was already ‘taken’ by other engineering firms. It could be argued that having a ‘second opinion’ would have provided the best value to the Lao government, given the controversy and uncertainty around hydropower construction.

Table 5.3 The initial ranking of the proposed hydropower dams for the SKSSNT Study in the first stage (1 is the highest priority)

Position	Scheme	Country
1	Nam Theun 1	Lao PDR
2	Se San 3	Vietnam
3	Se San 4	Vietnam
4	Xe Kaman 1	Lao PDR
5	Xe Katam	Lao PDR
6	Xe Kaman 3	Lao PDR
7	Se Kong 4	Lao PDR
8	Upper Kontum	Vietnam
9	Houway Lamphan Gnai	Lao PDR
10	Nam Kong 1	Lao PDR
11	Se Kong 5	Lao PDR

Source: Halcrow, 1998

Thus, political reality (the proposed schemes would be candidates for lucrative soft loans brokered by the ADB) dictated that the list be revised to enable each participant country to have two priority projects (TERRA Briefing, April, 2000; various interviews). The resultant six projects recommended for further study are shown in Table 5.4.

These six projects were not the SKSSNT-studies' initial priorities. In fact, the Lower Se San 2 and Lower Sre Pok 2 schemes in Cambodia were not even originally included in the list of eleven schemes (Table 5.3) for economic reasons. The revised listing moved these schemes to 7th and 8th position. There was thus a great difference between the first and the last priority list. This was motivated by the fact that the Lower Sre Pok 2 was almost profitable and that its economic standing was only a little below the other 12 schemes. In pushing the idea of two sites in Cambodia too, the study suggests an alternative dam site for the Lower Se San 2, but eventually the new proposal could not compete, and ended up with a lower economic value than the existing schemes. The original Lower Se San 2 still appears among the six priority schemes. Reportedly, this modification of the priority list was due to political pressure – not due to technicians' preferences.

In Lao PDR, Xe Kaman 3 and Nam Kong 1 were chosen, rather than Houay L G (see Table 5.2), although the total maximum score for the latter scheme is higher than the first two schemes. The reason, as argued by the study, was that it had already been identified for supplying Lao PDR's domestic market rather than for export. Similarly, Xe Katam and Nam Theun were also rejected possibly because they were under existing Memoranda of Understanding (MOU) and had already been studied to a higher level than what was proposed under this study. Se Kong 4 and Se Kong 5 were not selected for other reasons.

Table 5.4 Final six schemes selected by the SKSSNT study

Scheme Name	Country
Lower Sre Pok 2	Cambodia
Lower Se San 2	Cambodia
Xe Kaman 3	Lao PDR
Nam Kong 1	Lao PDR
Se San 4	Vietnam
Upper Kontum	Vietnam

Source: Halcrow, 1998

NOTE: These schemes are not listed in priority order.

In addition to the studies mentioned and analysed above, Sida funded the SWECO Master Plan for hydropower development in the upper Se San River Basin in Vietnam as part of the national plan (SWECO, 1999). It was completed in 1998, and considered 24 possible dams in the Se San Basin in Vietnam of which it recommended four (Se San 3, Se San 4, Kontum, and Dak Ne), for ‘medium-term development’ (Baird, 2000). This study regards Vietnam only and has no, or few, regional dimensions. It is likely to be the single most influential study for future Vietnamese decisions on hydropower in the Upper Se San Basin. Judging by the announcement in the Vietnamese newspaper *‘The People’* in the summer of 2001,³⁶ this study’s recommendations have been followed almost to the letter.

5.3 The current status of hydropower planning in the Se San/Sre Pok Basins

Given the uncertainties in this process, it is difficult to pin-point exactly what the current plans are for these Basins. However, the most likely schemes to be realised in the upper Se San River (in addition to Yali Falls) in the near future appear to be the *Se San 3*, *Se San 4* and *Upper Kontum*. Below, the features of these projects will be reviewed.

5.3.1 Se San 3

The *Se San 3*,³⁷ is located in Vietnam about 50 km from the Cambodian border and 20 km downstream of Yali Falls. It is expected to generate 260 MW and create a 17 km long narrow reservoir, and it is projected to cost US\$320 million. The *Se San 3* decision-making process has been complex and characterised by repeated and contradictory decisions. It is controversial and has received a wealth of critical comments.³⁸

After early discussions, the ADB was sceptical about *Se San 3* but later reconsidered it, apparently because the *Se San* was ranked top in terms of economic return on invested capital by Halcrow (1998) in their initial prioritisation process (Table 5.2). Yet *Se San 3* was ultimately not selected despite being ranked in first place and receiving a much higher score than the other schemes. The reason for excluding the *Se San 3* was that SWECO was undertaking a detailed study of the scheme on the Vietnamese side of the Se San Basin. Despite its omission from the SKSSNT study, the *Se San 3* is possibly the most attractive scheme of all. The ADB also shares this opinion, in principle: *‘From a pure power generating point of view, Se San 3 is an extremely attractive project, EVN needs the generation capacity.’*³⁹ It was also expected that it would benefit from knowledge, existing infrastructure, materials, and tools from the Yali Falls venture. However, SWECO’s *Review of the Master Plan for the Upper Se San River* proposed building the *Se San 3* only *after* completing the *Se San 4* and Yali Falls dams. But in July 1999, the ADB commissioned a Project Preparatory Technical Assistance to prepare the *Se San 3* for initiating construction by

³⁶ A brief semi-official announcement of the Vietnamese plans was made in June 2001. It claimed that *Se San 3*, *Se San 4*, Plei Krong, Thuong and *Se San 3A* would go ahead and ordered the EVN to arrange resettlement plans. It was reportedly issued by the Prime Minister. In spite of this announcement from the highest possible level, there is of course a wide array of uncertainties still to be overcome such as EIAs, financing, and downstream impacts.

³⁷ The *Se San 3* has been listed by most consultancy studies, it appears in the national plans, and it was ranked high on the SKSSNT’s study’s initial list, as well as in the SWECO study. It did not, however, appear as a prioritised project in the final SKSSNT study. This may be a trade-off, since the *Se San 3* already had the support and data it needed to continue the planning process, and did not thus need the extra ‘push’ of being put on this priority list.

³⁸ For instance, in October 2000 a review of the ‘*Se San 3 Hydropower Project Feasibility Study*’ by Probe International, found that ‘*sensitivity analysis of the study indicates that the project [Se San 3] is not economically viable and the study does not address downstream effects that may extend across national borders*’ (White, 2000). The report also indicates that the study carried out by SWECO overestimates the value of *Se San 3* as an electricity producer. The SWECO study also understates, it argues, the project cost by ignoring the interest charges during the year of construction. This critical report concludes that the SWECO study should not be the basis for investment decision-making (*ibid*). It has also been criticised for its likelihood of disturbing fish migration, negatively affecting nearby wetlands and increasing river bank erosion (Baird, 2000).

³⁹ Preben Nielsen, Deputy Director, IWD, ADB, taken from owner-irn-mekong@netvista.net 16/10, 2000.

the end of 2000. It was, at this stage, expected that the Se San 3 would be financed in partnership with the private sector.

Moreover, following the Yali Falls incident in January 2000 (see Box 3.2), the ADB was heavily criticised for its involvement in the hydropower sector in the Se San Basin. It therefore launched the idea of building the Se San 3 (downstream of Yali) as a model project to mitigate the Yali Falls impact (ADB Media Briefing Paper, 2000). This was regarded favourably by the Vietnamese Government at the time. The pressure from international donors, as well as its own growing interest for environmental rigour, however, urged the ADB to demand further environmental studies. The Vietnamese Government reacted negatively to the further delay in the construction of the Se San 3 and declared that it no longer required the ADB loan. Since then, the ADB has officially announced its withdrawal from the preparation of the Se San 3. In ADB's own words:

ADB was not formally advised of the reason for this decision [that Vietnam government did not want ADB support]. However, we believe it is due to concerns that further studies would result in further delays and there was still no guarantee that ADB would be in a position to finance Se San 3 once the downstream studies had been completed.

Preben Nielsen, Divisional Deputy Director, ADB, taken from Australian Mekong Research, Item 62/2000, Oct. 23, 2000

However, in an announcement in April 2001, it appeared that the Japanese Government, in a bilateral agreement, is prepared to fund the Se San 3 ('Voice of Vietnam web site', Hanoi, in Vietnamese 11 Apr 01). Subsequently it was announced that:

The Government has endorsed a project to build an hydro-electric power plant with an investment capital of VND 3,953 billion [approx. 280 million USD], 20 kilometres downstream of the Yali Hydroelectric Power Plant in the Central Highlands. The 273-MW Se San 3 Plant is anticipated to be completed by 2007 and generate 1,127 million kWh per annum...

The Saigon Times Daily, July 30, 2001

At this stage it is unclear which social and environmental priorities and standards will be applied. It is a common fear, among the people we have talked to, that there will only be a brief EIA conducted on the Vietnamese side, and then construction will start. This project is likely to be the first test case for the viability of the new standards on environmental protection and social concerns that the MRC is developing (see Chapter 4). It is, however, at this stage difficult to believe that Electricity Vietnam will internalise MRC's Hydropower Strategy and apply it fully to this project.

5.3.2 Se San 4

The *Se San 4* is the furthest downstream of the Se San mainstream schemes now proposed in Vietnam, downstream of both Yali Falls and the other Se San dams. This dam would be located approximately 8 km from the Cambodia border. With an estimated generating capacity of 300 MW and a 60 km² reservoir, it is the one most likely to follow after the Yali Falls and the Se San 3. The Se San 4 was recommended as one of the six priority projects in the SKSSNT study, and it was recommended for medium-term development by SWECO (1999). The dam will be about 70 m high and 1500 m long. The scheme design flow is 770m³/s and will operate for six hours a day. The estimated total construction cost is US\$337.5 million (ADB, 1998). It has been argued that the Se San 4 dam risks exacerbating the downstream impacts of the Yali Falls Dam and a (future) Se San 3 (Baird, 2000). In June 2001, it was reported that the Vietnamese Prime Minister had approved the Se San 4 (see footnote 35).

The reservoir construction of Se San 4 would flood 5,200 hectares: 200 hectares of cropland, 2000 hectares of short bamboo forest, 1,000 hectares of young regeneration forest. A further

2,000 hectares of degraded unstocked forest or fallow swidden fields and 15 villages' residential land will be lost (Halcrow, 1998). The number of people to be affected or resettled is difficult to determine. However, according to the report by TERRA (TERRA Briefing undated), some 1,021 people are estimated to be living or have land in the proposed reservoir area, so about 800 people are likely to need to be resettled as a result of the dam. The total population either in or fairly close to the proposed reservoir area is 4,210, constituting a ratio of 14 resettled persons per MW. These numbers are likely to increase soon as the population growth rate remains high.

5.3.3 Upper Kontum

The *Upper Kontum* scheme is located on the Dak Nghe River, an upper tributary of the Se San River in Vietnam. The dam site is about 40 km northeast of Kontum town. This dam would divert water from the Dak Nghe River into the Dak Lo River through a two-stage transfer scheme. The Dak Lo flows into the lowland zone of the Vietnamese coastal plain, outside of the Mekong Basin. This is an inter-basin water diversion project, which would alter water flow, both in the Dak Nghe and Se San River. The upper Kontum dam was the other priority hydropower project proposed for the Se San Basin in Vietnam by the SKSSNT study, despite the fact that a severe hydrological impact was identified. It was also listed as a priority project for medium-term development by SWECO. The regulation of inter-basin transfer of water, and its inherent complexity, has been given consideration in the MRC Agreement. The MRC Agreement is quite strict on this point, disallowing transfers during the dry season. The exception is in situations of 'surplus'. What 'surplus' is, is currently a contentious issue which is being negotiated in the Water Utilization Programme (WUP – see Chapter 4). One argument is that surplus is basically never present during the dry season (an argument normally endorsed by Vietnam). What exactly constitutes the 'dry season' is, however, also unclear. It seems that either this project will operate under severe limitations or else it will disregard the MRC Agreement.⁴⁰

5.3.4 Cambodian dams

Apart from the dams envisaged for the Se San River Basin in Vietnam, a number of projects have also been proposed for the Se San Basin in the north-east of Cambodia. These include the *Lower Se San 2* and the *Lower Sre Pok 2* (Map 5.1). Two different locations were proposed for the *Lower Se San 2*, but the second was subsequently rejected for economic reasons (ADB, 1998). Although the economic feasibility of the remaining proposal is also questioned, it is still included as a priority project in the SKSSNT study, possibly due to the pressure to include two priority dams for each of the three countries. The scheme, which is in the lowest part of the Se San River catchment, would receive partially regulated water flows from proposed upstream schemes including Upper Kontum, Plei Krong, Se San 3 and Se San 4 and the Yali Falls. The Lower Se San 2 scheme would be located just below the second largest town of Ratanakiri province, Veun Sai, which would be inundated, as would the surrounding lands all the way up to Vietnamese border. Resettlement requirements are unclear.

Lower Sre Pok 2 shares many characteristics and potential impacts with the *Lower Se San 2*. Both dams would have large, shallow reservoirs with low heads and both would obstruct fish migration in a major tributary of the Mekong system. The *Lower Sre Pok 2* would require a major resettlement plan and it is also not believed to be commercially viable (Halcrow, 1998). Somewhere between 1,000 and 3,000 people would have to be relocated if the dam was completed. Hydropower development in the 'north-east' used to be a high priority in the Cambodian national plans. However, due to the controversies and the increasing difficulty of finding financing, neither of these projects are now priorities. Instead priorities have shifted to western Battambang (in the far west of the

⁴⁰ Reportedly, the Vietnamese representatives lobbied the SKSSNT study team to get this project selected due also to serious water shortage problems in the coastal area.

country, outside the Lower Mekong Basin), where a few small/middle sized projects are rapidly moving towards construction.

5.3.5 Dams in Lao PDR

The *Xe Kaman* and the *Nam Kong* in Lao PDR, included and recommended in the SKSSNT study, are not top priorities in the national Lao PDR hydropower plan, at least not as long as funding has to be met/arranged by the government. However, the relative disinterest in these projects does not necessarily indicate that the government has ceased to be interested in hydropower development, but rather that other locations are more attractive.

5.4 Assessing the process

The process of planning hydropower projects in the Lower Mekong Basin is becoming increasingly complex: it is not only taking place in a crossboundary context in an ecologically sensitive area, but its practices are in a state of transition. The decision-making process is characterised by contradictory statements, politically compromised technical reports, and sharp policy turns. The process reviewed above is obviously driven by particular interests and the full picture is rarely considered. There is, however, sometimes (and sometimes not⁴¹) a rather sophisticated coordination carried out between project planning and consultancy studies (which does not necessarily indicate that the results are ‘better’), arranged so as to gather pro-hydropower interest in the most efficient way. Major institutions (like the ADB) tend to serve the role of *promoting* hydropower, rather than *regulating* it to prevent undesired consequences.

Moreover, the MRC seems to have played a similar role – although with less ‘success’ – until the late 1990s. A regional/crossboundary perspective in planning seems to largely have been missing. As we have seen, this has also damaged the process, with a very real price to pay now in terms of unforeseen downstream impacts and strained international relations (see Box 3.2). The process has obviously been project-driven, leaving little room for comprehensive development ideas/visions other than those inherited from the general growth-oriented modernisation paradigm.

The individual governments are clearly the key players. Other weighty players are all external – either donors, consultants or multilateral financing institutions – who push the process forward through initiatives such as initiating preparatory studies and financing feasibility studies. In our view, there seems to be a constant and general undervaluing of environmental issues as well as of concerns for local livelihood systems in these studies and in this process. Although specialists are hired, seemingly carrying out high quality work, it does not reach the final reports and/or the decision-making circles. However, many in this situation testify that they feel that they in the process have been moving frontiers and have reached some sort of ‘consensus’ (cf ‘epistemic communities’, Chapter 2), and have actually made decision-makers aware of the value of these perspectives.

Table 5.5 shows that the initial ideas, generally scorned for their naivety, ranging from the early 1960s to today, largely remain. It also shows that the justification for the plans are largely the same: the huge potential for meeting anticipated energy demands, and, for Cambodia and Lao PDR, as a major export product.

The SWECO study covered the Upper Se San and was completed in 1998/99. The ADB-funded SKSSNT study was also completed in 1998. Despite stemming from the same rationale, the studies nevertheless differ, and only occasionally refer to each other. In fact, although aware of each others’ existence, only limited information was mutually available. This points at the obvious but sometimes ignored fact that such studies, seemingly technically exact, are also subject

⁴¹ Reportedly, vital information was at times withheld for the technical personnel.

Table 5.5 Summary of major hydropower studies of the Se San/Sre Pok basins

Study	Year	Commissioned by:	Recommendations for Se San/Sre Pok Basins	Justification for recommendation
Wheeler Report	1957	US Dept. of the Int.	Outlining the grand ideas for a major water resources development of the Mekong Basin. Launching idea of a Masterplan.	Great development potential and need in the Mekong Basin. Good experiences from TVA.
Mekong Reconnaissance Team	1961	JOEISI (Japan)	Formulating preliminary plans for dam development on the 34 major tributaries of the lower basin and drawing up preliminary development plans for the dams on the whole of the mainstream.	Flood control and water resource management is desirable.
The White Report	1962	United States	Outlining the wide-ranging consideration of social and economic aspects for the development of the Mekong River development.	Vital to get a precise grasp of the overall situation; water resource and land use development.
Mekong Committee	1970	Mekong Secretariat	Identifying number of dam development projects in the whole Lower Mekong Basin. See Table 5.1 above.	The need for electricity to develop industrial sectors.
WATCO	1984	IMC	Identifying number of dam development projects in the whole Lower Mekong Basin. See Table 5.1 above.	The need for electricity to develop industrial sectors. Export possibilities.
Subregional Energy Sect. Stud. (ADB)	1995	ADB	Urging energy development in the GMS, especially the Se Kong, Se San and Nam Theun River Basin.	Promoting economic development in the region and the need for electricity to promote industrial sectors.
SKSSNT (Halcrow)	1998	ADB	Recommended six priority projects in the SKSSNT River Basin; Se San and Thoung Kontum, Lower Sre Pok and Lower Se San, and Nam Kong I and Xe Kaman 3.	Utilising energy potential. Matching peak demand for electricity in Thailand.
SWECO (Vietnam only)	1999	Sida	Recommended Se San 4A, Se San 3, Pleikrong, Thoung Kontum and Dak Ne A in Vietnam.	Reviewing the Hydropower Master Plan for the Se San River for Vietnam. Addressing future energy demands in Vietnam.

to personal preferences, unclear data, preconceived values, and cognitive limitations of the consultants, making them part of the politics of hydropower planning.⁴² To us, it is neither clear why they differ nor why they were commissioned simultaneously. One explanation is of course that the SWECO study was done to define Vietnamese priorities, while the SKSSNT study was thought of as a vehicle for accessing ADB funds. But there may be other plausible explanations too, such as that the large uncertainties in these processes naturally produce different outcomes. In Table 5.6 the ‘hottest’ projects are listed and their origin traced.

None of these studies accounts for the impact downstream in Cambodia, nor the broader impacts on the Mekong Basin at large.⁴³ The Cambodian Government was, for instance, obviously insufficiently informed about the Yali Falls hydropower start-up (see Box 3.2 and Chapter 6). Finally, these studies were generally – albeit with an increasing interest in environmental issues –

⁴² The point here is not to devalue individuals’ professional capacities, but rather to display that studies like these are also subject to various ‘standpoints’.

⁴³ Interestingly, there appear to be data on this in these studies, but it is downplayed in the process and/or disregarded in the printed reports.

Table 5.6 Summary of major hydropower projects and their origins

Project	Studies Which Prioritised the Project				
	The Mekong Rec. Team, 1961	Mekong Secretariat, 1970	WATCO 1984	SKSSNT (Halcrow) 1998	SWECO 1999
Lower Sre Pok 2	Indicated	No	No	Yes	N/a
Lower Se San 2	Indicated	No	No	Yes	N/a
Se San 4	Yes ⁴⁴	Yes (Upper Se San 4 only)	Yes (Upper Se San 4 only)	Yes	Yes
Se San 3	Yes	Yes (Lower Se San 3 only)	Yes (Lower Se San 3 only)	No	Yes
Upper Kontum	Indicated	Yes (Kontum area)	Yes (Kontum)	Yes	Yes
Xe Kaman	No	Yes (Xe Kaman 1, 2, 3, 4)	Yes (Xe Kaman 1, 2, 3, 4)	Yes	N/a
Nam Kong 1	No	Yes (Nam Kong 1, 2 and 3)	Yes (Nam Kong 1, 2 and 3)	Yes	N/a

dominated by technical and economic concerns and failed to display in any depth the wide variety of possible impacts that come with hydropower projects. Neither did they elaborate on who should bear the costs of these impacts.

None of the above mentioned studies display the environmental awareness and concern that subsequently have been outlined by the MRC in its Environment Programme and in its Hydropower Strategy (cf. Chapter 4).⁴⁵ Why this is so, triggers an interesting discussion. Either there is a gap between general environmental views now (2001/2) and then (1998/1999); a gap between different clients' (ADB/Government of Vietnam versus MRC) views on hydropower and environmental issues; or there is a gap between external consultancy firms' approaches (and preconceived views of preferred development interventions), and those of the ones working out the various MRC programmes (and their preconceived views of preferred development interventions). Currently, no simple answer to these different propositions can be provided, but, the presence of a 'gap' provides food for thought.

It would be immensely interesting to see what would happen if a consultancy firm was asked to explicitly include the standards of these programmes in an assessment of the available hydropower sites in the Se San/Sre Pok Basins. The result of such an endeavour would certainly be different from previous experiences. Given this approach, it is far from sure that any of the above mentioned projects in the Se San or Sre Pok Basins could be defended. It is not even certain that such a study could be carried out at all with high credibility since currently, for instance, there is neither sufficient knowledge of cumulative environmental impact nor of local livelihood systems.⁴⁶

Up to 1999 at least, it seems that the 1995 MRC Agreement made little difference to how the process of hydropower site selection has been practised historically. Its impact seemed to be

⁴⁴ Both Se San 3 and Se San 4 are mentioned. However, it is uncertain whether they are referring to the same locations as the came to do later.

⁴⁵ Again it deserves to be pointed out that this information and these perspectives may have been present in the work of these reports, although it does not really show in their final versions.

⁴⁶ For instance: migration patterns of the various fish species in the basin are not well known; which species inhabit various parts of the basin is not properly mapped out; impact of altered siltation loads is up to speculation, so are the consequences of changed temperature (as a result of damming) of the water, etc. In parallel, at least on the Cambodian side, there is little insight into what changed water regime may mean to various ethnic groups: at times, it may not be important (cf. Ovesen 1995), while at others, it may prove devastating (Fisheries Office 2000).

limited to liberalising previous veto-based statutes, allowing more hydropower initiatives. With the new leadership, a new round of secured financing, and with the reinvigorated MRC, the situation is supposed to be different, but that remains to be seen. Even within MRC curiosity is high about whether this will prove to be the case. The combination of being international as well as being an arena where governance has a regional face, makes Se San/Sre Pok Basin unique in the Mekong region. Let us see to how this is understood locally.

6 Touching Base: Local Perspectives on Hydropower Development⁴⁷

Hydropower development in the Se San/Sre Pok Basins has been on the cards for at least four decades. However, as shown above, few, if any, studies have concerned themselves with the local conditions and the social and environmental impacts of dam building in the Basin. In this respect, as we have ample evidence of above, the situation is different now. Planners, whether part of governments, consultants or development organisations, can no longer reasonably ignore these issues. Globally and regionally, the major trend, visible in both the work of the MRC and the WCD, is that credible hydropower plans need to consider local circumstances and engage in public consultation. This chapter tries to understand the local dynamics and the extent to which local authorities and people are a part of this process, as well as assessing the (little) previous hydropower-related experience in the area.⁴⁸

Given the linguistic, geographic, and cultural differences inherent in this area, information-sharing and public participation are particular challenges. Yet they are crucial in two major respects: Firstly, the involvement of local authorities in implemented projects as well as future plans in Cambodia and Vietnam is imperative if accepting the ideas/ideals on participation and public consultation so vividly held up in both the WCD report, the MRC Agreement, and the MRC Hydropower Strategy, which also seem to be cornerstones in the ‘new’ resource regime pioneered by the MRC. Secondly, to open reliable communication channels between Vietnam and Cambodia would respond to some of the key passages in the MRC Agreement, through highlighting cross-boundary aspects of Mekong governance. Information needs to be shared in order to minimise ‘harm’ caused by interventions and in order to adhere to the MRC Agreement which is very clear on ‘notification’. The purpose of this chapter is thus to contrast, as concretely as possible, the ‘new’ development within regional governance with actual local level understanding, perceptions and influence on the project.

Both the aspects above are made more difficult due to the ethno-political composition of this area, and the rudimentary level of physical infrastructure. The people in the Basin are to an overwhelming degree highland people, ethnic minorities, living an economically and politically marginalised existence. Although traits differ, they often practise a combination of paddy rice cultivation and swidden agriculture, with major additions of hunting and gathering; fishing is particularly important in this regard. Although the people scrape a living, extreme poverty is widespread, and there is no buffer or readymade alternative should ecosystems falter. It is also evident that culture is intrinsically linked to livelihood systems, so any changes to these cut deep into the very fabric of these societies. Whether on the Cambodian or the Vietnamese side, it is difficult to see – at least in the short and medium term – how dams would benefit people living in the implicated areas, and easy to see how they would constitute a burden (Fisheries Office, 2000; Baird, 2000; CRES, 2001).

It is important to note in this regard, that this is not necessarily an argument in favour of the status quo. Quite the contrary, there are many reasons to believe that (many of) the indigenous

⁴⁷ This chapter focuses largely on the Se San basin, since this was where we chose to situate our local fieldwork.

⁴⁸ There is virtually no academic research on this issue in this area to rely on. This chapter is primarily based on three different reports: *Hydropower Development on the Se San River in Vietnam, and Downstream Impacts in Northeast Cambodia*, by Ian G. Baird, 2000; *The Current Condition of the Se San River in Ratanakiri Province*, by Mak Sithirith, 2001; and finally, *Study into Impact of Yali Falls Dam on Resettled and Downstream Communities*, carried out by the Center for Natural Resources and Environmental Studies (CRES), Vietnam National University, 2001. The first two reports are wholly or partly financed by this project and constitute unique field research. The latter is also a unique research endeavour which was brought to our attention by Aviva Imhof, International Rivers Network (IRN) to whom we are grateful.

people are interested in improved material living conditions (Ovesen 1995). The study's rather negative assessments are more based on the fact that neither the institutions nor the mechanisms for channeling the benefits from the dams to these people exist. A historical perspective also supports this claim. Let us assess whether the current process implies a break with this historical pattern.

6.1 Public participation

The flow of information from the centre to local authorities and local communities downstream in Cambodia and Vietnam is irregular and/or dismal; flow of information in the other direction (bottom-up) is even worse. This seems also to be the case for the future plans for the Se San/Sre Pok Basins. For instance, for the two proposed hydropower projects in Cambodia, Lower Se San 2 and Lower Sre Pok 2, the District Governors of Veun Sai, Adong Meas and Ta Veng had received no information at the time of our field visit. So far, they have never been consulted about any plans for these schemes. The consultant companies who prepared the study of Se San, Se Kong and Nam Theun River Basins in 1997 and 1999 did not consult them either, and as far they know the consultants never went to this area for this purpose. Apart from Yali Falls, which they learnt about the hard way, they know nothing about other plans.

A District Governor in Ratanakiri was only aware of the Yali Falls and knew nothing about the other proposed dams upstream and downstream on the Se San, in Cambodia and Vietnam. He was also surprised when he learnt that the proposed schemes in Cambodia would, if constructed, generate electricity for sale to Thailand and Vietnam. He argued that these dams will negatively affect the ethnic people, but will benefit people in other parts of the country and in other countries. Furthermore, building dams will displace many people who will be forced to encroach on forest in the uplands, starting a new vicious cycle of local conflicts (over space) and setting off an unsustainable downward spiral, which also would cause him and the local authorities problems.

The Directors of the Provincial Water Resources Department and Provincial Industrial Department in Banlung, the provincial capital of Ratanakiri, also said they knew nothing of the proposed schemes. As the schemes are part of national plans they are treated as beyond the immediate concern of provincial departments, hence the scarce information. The Director of the Provincial Industrial Department said that as far as he knew, the Government of Cambodia wanted to build hydropower stations in the north-east, but now priorities have changed to other parts of the country. He further indicated that in Ratanakiri province, so far, there is only one small hydropower station (O'Chum) which generates one megawatt of electricity. The province's electricity demand has increased to nearly 2.5 MW. To fulfil this demand, the province is planning to build two small-scale hydropower stations which will generate one megawatt of electricity each. This kind of small-scale project as opposed to the huge projects planned is what seems to be desirable in Ratanakiri, and makes sense in terms of local development.

The Governor of Ratanakiri province said that he would like to ask Vietnam not to build Se San 3:

If only the authorities in Ratanakiri province requests this, the Vietnamese government will not listen. Only if international organisations and the MRC join the appeal, they will listen. We need very broad support.

He also indicated that there are many projects proposed for the Se San River:

All over the world, many countries have built dams with major impacts, where many people have been dislocated. This had, however, been impacts in their own country. Small dams could be built but big dams should not be built.⁴⁹

⁴⁹ H.E Kham Kheun, Governor of Ratanakiri province, who spoke at the Workshop on the Downstream Impacts of the Yali Falls in Ratanakiri on 22 May 2000.

Similarly, ordinary people do not know, and have never been asked, about any future plans, despite the fact that these people live in the proposed project areas. Many people worry about the impacts of the proposed dams on fisheries, about the eventual breakdown of the already constructed dam, and about the haphazardly rising and sinking water levels. The people we had the opportunity to talk to (in Cambodia) mentioned that electricity is less important to them than gold, fish, water, and the forest. For them, in their poverty, something that they can ‘produce’ – fish, gold (through panning), or non-timber forest products – would be taken away and replaced with something that they would have to ‘consume’ (electricity). This does not make sense to them. In Veun Sai district for example, fishing is the main livelihood activity. However, fish catches have been reduced possibly/partly as a consequence of Yali Falls, and more people have encroached on the forest areas and cleared them for *Chamkar* cultivation causing deforestation and local conflicts (Fisheries Office, 2000).

In terms of local information, the situation appears to be similar in Vietnam – at least in relation to the Yali Falls Dam:

Mr Siu Vi from Dip village reported that the water was unusually turbid in the rainy season in 1996 [and could not understand why]. He was the headman of the village at the time. He went to the Ia Mong People’s Committee and asked about the colour of the water. They said it was due to construction of the Yali Falls Dam.

CRES, 2001:26

In a similar vein to the plight of the population along the Se San River in Cambodia, downstream of Yali Falls in Vietnam, water seems to have been sporadically released and withheld, causing material havoc and bringing increased risks to lives and livelihoods (CRES, 2001). However, although the villages that are affected are remote, there seems to be a qualitative difference in the downstream area in Vietnam. The area was included in the EIA process, and the effects were thus not entirely unforeseen, and some of the villages have received some mitigation measures. The inundated villages upstream of the reservoir have been going through a controlled, although not perfect, resettlement process (*ibid*).

The recent message in the Vietnam newspaper *The People* (see footnote 35), further indicates the lack of local consultation and participation when projects are ordered from the central level; as it seems decisions are not open to negotiations.

How these announced plans will be made compatible with either the new hydropower programme or the already established Environment Programme of the MRC is difficult to see. The former, for instance, reads:

Current EIA ‘best practice’ sets out explicit guidelines on how public consultation should be facilitated with the ultimate aim of allowing active stakeholder involvement in the decision-making process. An effective public participation process should ensure the following: full and active stakeholder representation; process accepted as legitimate by stakeholders; decision-makers and stakeholders understand each other’s concerns; general trust and confidence in the ultimate decision-makers and the scheme; decisions are improved by public participation; key decisions are accepted as legitimate by stakeholders./.../In the case of hydropower projects in the Mekong Basin the stakeholders would generally range from individuals and communities in the proposed reservoir and downstream areas, to relevant regional and national associations and organisations.

MRC 2001:32

This is quite different from the process experienced so far in the Se San Basin. However, these hydropower plans could quite easily be compatible with the hard core of the MRC Agreement, but then disregarding its ‘soft’ policy dimensions.

6.2 Information sharing: what is ‘notification’?

A non-negotiable aspect of the MRC Agreement is that of ‘notification’; i.e. downstream countries cannot veto projects, but they have the right to information. All parties agree to this, but not to how this information should be detailed or when it must be released. This has already been a controversy in the short history of the MRC Agreement (Öjendal, 2000). The Yali Falls incident further highlights this and judging from our data of the continued planning in the Se San/Sre Pok Basins, it is still a vital aspect of both regional governance and local development. As it stands now, there are still far too many uncertainties, constituting a breeding ground for conflict. This – information sharing and transparency – is also an aspect of watershed management that is stressed in both the MRC Hydropower strategy and in the WCD report.

In the aftermath of the Yali Falls incident (see Box 3.2), the ‘politics of blame’ commenced. In a letter to Joern Kristensen, Chief Executive Officer of the Mekong River Commission Secretariat (MRCS), the Secretary General of Vietnam National Mekong Committee claims that in 1997 Vietnam notified the Joint Committee of the MRC about the activities on the Se San River. The Vietnamese embassy in Phnom Penh also confirmed that they informed the Cambodian Government about Yali Falls, thus fulfilling their obligation for notification under the MRC Agreement.

However, the report of the ADB RETA on Poverty Reduction and Environment Management in the Remote Watershed in the GMS states that ‘*Vietnam, by not properly informing downstream riparian stakeholders regarding the time and scale of water discharge from the Yali Dam, has violated the 1995 Mekong River Commission agreement signed by its member countries.*’ (ADB, 2000a). The report also states that the issues must be addressed as soon as possible to maintain trust in the MRC Agreement and develop jurisdiction and enforcement to compensate for transboundary impacts. Moreover, the Governor of Ratanakiri Province has stated that the Vietnamese Government never formally consulted with the Cambodian Government regarding Se San River dams being constructed or planned in Vietnam (taken from Baird, 2000). Moreover, in 1996, government officials in Ratanakiri reported that they were not informed about the operation of the dam and could thus not compensate for its effects or warn people that a flood was coming (Baird, 2000). At least at the provincial level, the Governor of Ratanakiri believes no notification has been provided up to April 2000 (Baird, 2000).

These contradictory statements demonstrate the difference between fulfilling the ‘hard’ part of the MRC Agreement – notifying in time – and fulfilling the soft policy aspects, such as not causing harm and assuming a shared responsibility so that ‘inevitable’ impact is minimised. Our understanding is that Vietnam did give notification at some stage, but not in enough detail or leaving enough time for it to make a difference, or simply that the Cambodian authorities did not recognise it as such. Obviously, the information never reached the right level or the right authorities. The problem here seems to be twofold: firstly there is no shared understanding of what a notification should involve, what it should contain, and when it should be issued. Secondly, there is no proactive institution which can spot the misunderstandings and back up the faltering process. However, the MRC did act on the ensuing crisis with some success, and it could very well be acting more pro-actively in the future (Box 6.1).

This points to another problem too. The damage was unintentional, but knowledge and understanding of where people lived on the Cambodian side or how they would be affected were simply too limited. The Cambodian authorities, who obviously had some kind of information about this, did not take the problem seriously enough to reach out to the concerned communities. There does not seem to be enough knowledge about, and respect for, the ethnic minorities and their livelihood systems. If this is true, it heralds future tragedies too.

Box 6.1 The MRC in a conflict preventing role at Yali Falls

The 1995 Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin specifies that the MRC is responsible for minimising the harmful effects of natural occurrences and man-made activities. As the problems of the Yali Falls incident became known in early 2000, the MRC Secretariat put together a task force with a broad representation that toured the area.

The mission concluded that there were some negative effects from the abrupt release of water from the Yali Reservoir. From April 20th-22nd 2000, the MRC facilitated a meeting between the Cambodian and Vietnamese governments in Vietnam. The Cambodian delegates consisted of the Director of Cambodian National Mekong Committee, Governor of Ratanakiri, Director of Hydroelectricity Department, representative of Ministry of Environment and other officials. From Vietnam, there were representatives of Vietnam National Mekong Committee, Deputy Director of Power Generation Department, Electricity of Vietnam, Project Director, Deputy Project Director and others. They visited the Yali Falls Dam and discussed the mechanism for information exchange. The task force mediated a plan for avoiding similar accidents in the future and the two parties agreed on the following principles:

- There would be no more release of water without prior warning.
- About 15 days' advance notice should be given of the release of water, under normal circumstances.
- In emergencies and extreme flood situations, warnings should be immediately dispatched directly to the relevant levels.
- Environmental mitigation studies, if needed, will be discussed further later, with the participation of the MRC.

Subsequently, the MRC has installed three water control stations along the Se San River in Veun Sai, Ta Veng and Andong Meas to control the water levels in these areas, and a committee for dealing with this issue was henceforth set up.

Reportedly the negotiations were productive and held in good spirit. Both parties commented that '*the matter had been resolved and that this was the end to it*'. Questions have, however, arisen following the meeting, including for instance how and to whom warnings of extraordinary releases of water should be communicated, and in which language.

Based on: MRC, 2000b; Phnom Penh Post June 9-22, 2000; interviews at MRCS and interviews in Ratanakiri.

6.3 Conclusions

Regional environmental governance did not work in the case of the Yali Falls Dam construction and throughout its start-up phase. Although we shall not dwell upon this here since the study is more interested in the post-1995 resource regime, there are lessons to be learnt. It might actually prove to be the start of a progressive process in terms of information sharing and conflict prevention (Box 6.1). In a sense, the responses to the incident can be described as a start of a regime-thinking, since it triggered MRC involvement, regional/bilateral conflict resolution, enhanced information sharing facilities and, possibly, increased mutual perceptions of goodwill.

Looking to the future, a number of conclusions can be drawn for current hydropower planning. Firstly, it seems obvious that hydropower expansion is not carried out for local people, nor even for the local political elite. An argument has been made that indigenous people want modernisation as much as anyone else, and that they need it more than most others, given the current status of education, health etc. (Ovesen, 1995). This would at least be partially true if the local population received any benefits from such developments. If the local communities could share the benefits and control that process, Ovesen's argument would be worth pursuing. The tragedy is of course that there is no indication of this so far. General 'trickle-down' does not seem to work here either.

Not only do benefits go somewhere else, information is not disseminated to the local level, or even to local authorities. Consultants do not routinely consult local authorities. Central government only states that something is of national concern, and therefore not the business of the provincial

government, and then orders compliance. The local circumstances in terms of people, livelihood and resettlement difficulties are barely regarded.

For instance, reviewing the situation in Ratanakiri, it seems obvious that there is a need for a pro-active regional institution with a mandate for resource and environmental issues. The MRC has this mandate and also a responsibility to prevent conflicts between riparian countries. MRC's first intervention (Box 6.1), whilst slow to start, and occurring only after the damage was done, was quite promising. Hopefully the lesson has been learnt that it is worthwhile to actively build this kind of capacity. Unfortunately, pro-active work needs to be done in this field – i.e. the MRC needs a 'standing capacity' – in order not to be 'too late' next time too. This is a task that only the MRC can take on and where it would contribute real value to the member countries. It could facilitate information flow, encourage an increased degree of transparency with the member countries, and work to improve member countries' accountability. This could be done in a 'communication unit', pro-actively assuring/facilitating that information that, according to the agreed standards, should be available, is available and correctly interpreted and disseminated.

Thus, it is worthwhile to establish closer ties and to make an effort to improve the information flow. Or to put it in other words, the only way of dealing with these kinds of crossboundary impacts and damages without causing unnecessary friction, or even regional conflicts is to move towards a mutually recognised regional regime of some sort.

An *effective* resource regime will only be arrived at through a process of trial and error, highlighting that the MRC Agreement is only a start for creating a Mekong resource regime. Eventually sufficient norms could be established even in practice to make members feel confident and secure in the formal and informal framework that crystallises. What is important then, is that each incident of this kind is discussed extensively so that there is a shared understanding of what it meant, and the lessons that must be learnt.

7 Conclusions: Towards Environmental Governance in the Mekong

Below, conclusions will be offered in four different forms. First we account for the overall ‘images’ that are crystallising from our empirical data. Secondly, we state our ‘core conclusions’, which relate closely to our initial research questions. Thirdly, we recall our theoretical approach and consider the achievements of, and the prospects for, the Lower Mekong Basin cooperation to evolve and turn into a functional ‘resource regime’. Finally, in a normative sense, we advocate a number of measures in order to facilitate regional environmental governance, and argue that a number of critical concepts need to be debated and rethought.

7.1 The crystallising images

This study shows that the decision-making process for hydropower site selection in the Se San Basin is a *complex interplay among a range of actors*, exercising their formal mandates but also promoting their own interests, legitimate or otherwise. The actors include national governments (ministries of planning and investment, water resources ministries, ministries of industry etc.); public utilities (Electricity of Vietnam, Electricity Du Lao); the Asian Development Bank; bilateral donors (Sida, Norad, JICA); consultancy and construction companies (SWECO, Halcrow, Norplan, Statkraft); international investors (Nordic Hydropower, owned partly by Statkraft); and equipment suppliers. Notably under-represented are NGOs and grassroots interests, except in the role as fierce critics.

It appears that the process of hydropower site selection in the 1990s has been driven by a triad *consisting of national governments, the ADB, and the consultants*. MRCS and NMCs has been left aside working in a parallel process on, for instance, developing hydropower and environmental programmes, and gathering data. MRC also serves as a guardian of the MRC Agreement, and has a latent *ad hoc* conflict resolution capacity. The actors in this ‘triad’ all come from a pro-hydropower tradition, viewing increased national access to energy as key for national economic growth, and such growth as the main aspect of development. However, this triad seems to be slowly breaking up under pressure for improved environmental governance, increased transparency and accountability, and greater respect for local livelihood systems.

Poverty, as well as awareness of poverty, is reaching levels where it can no longer be ignored, and *hydropower can no longer be justified as seen as the short or medium term means for alleviating rural poverty*. Hydropower planning has to acknowledge this, and has to be justified on other grounds. The MRC and its programme’s content is a move towards a more comprehensive view on natural resources management in Lower Mekong Basin. Moreover, if the hydropower interests have to back down, there is increasing space for inter-disciplinary work, increasing the room to manoeuvre for the MRC.

Moreover, the *roles played by the various actors are sometimes elusive and complex*. The ADB, for instance, has huge resources and constitutes an attractive partner for national governments. However, its back and forth policy in relation to the dam projects discussed in Chapter 4 is, more than anything else, evidence of a policy shift occurring as is also indicated by its own social and environmental programmes. ADB, as well as the bilaterals, often facilitate hydropower interventions by supporting feasibility studies without realising/admitting/acknowledging that they are actually thereby *de facto* supporting hydropower construction. National governments, for their part, adapt their plans to the signals they receive from donors, banks and private sector interests, which change according to other dynamics, and in relation to the nature and intensity of resistance encountered from various directions. Therefore, both actors and roles are elusive and complex. In combination they appear non-transparent.

There is *a major paradox in the Mekong cooperation*: on the one hand the member states signed the Agreement and have subsequently continued to develop progressive environmental frameworks in the MRC – at times reportedly even faster than the MRCS has been able to accommodate. Thus there is obviously a will to establish more solid environmental protection standards. However, looking into the individual states and their internal dynamic, environmental interests are weak, and not capable of asserting themselves when other weightier interests are involved. At some point these two seemingly incompatible approaches will have to negotiate with each other, and the outcome will be very interesting and important.

The process of hydropower site selection, of which only a glimpse is shown above, is so far characterised by *repeated, overlapping and contradictory studies* which have been carried out without proper communication and consultation, or at least with limited ‘reality checks’ and which have arrived at different conclusions. This might partly be due to oversight, but given the level of political sensitivity and the stakes involved, it is just as likely to constitute exercise of power, disguised in technical reports. Many negative aspects of hydropower projects – such as the existence of ‘external’ costs and cumulative environmental impact – are of course well-known by the different consultants. If externalities are not assessed in their reports, it is because they have either chosen not to include them or because they are not included in their Terms of Reference, implying that those hiring them have chosen to exclude them. One of the key advantages of the WCD report is that it has brought these processes into the open, making it virtually impossible for any accountable actor to disregard them.

We should also note that *the ‘paradigm shift’ within water management* has finally reached the Mekong cooperation. Water no longer invariably equals hydropower potential and central powerholders no longer have a sovereign right to decide its utilisation. The WCD report is the most high profiled evidence of this shift, and it seems as if the MRC has – through a remarkable change in outlook from 1999 and onwards – integrated this perspective into its work (and the ADB may be about to). It is difficult to see any scenario where these perspectives will not be increasingly significant for watershed management in the Lower Mekong Basin. While the ecological complexities and environmental concerns of the Mekong ecosystem have been well known among environmentalists, it is now rapidly becoming acknowledged in far wider circles. However, discrepancy between policy and practice seems to be wide, and possibly widening.

The national governments in the Lower Mekong Basin find themselves in the same situation as virtually all governments in today’s globalised world; their ambitions are impeded by external forces. That is, most would like to continue to build major hydropower stations, but if they do they will be deserted by the major financing bodies, will have to struggle with MRC’s new frameworks, and will be directly opposed by the increasingly powerful NGO community. Then again, the governments are not single-minded in their approach, since they have both created the new MRC approach whilst pursuing massive hydropower plans. Clearly there are different agendas within and between various agencies in each state. Typically, ministries of industry, energy or planning have been pro-hydropower and have been very strong, while ministries of environment (and the like), have been weak – as have representatives of grassroots interests. This is still the case, but the balance has started to shift in favour of social and environmental interests. Simultaneously, growth and modernisation pressure remain high.

7.2 Core conclusions

Leaving the overarching images aside, moving closer to our research questions (Chapter 1), we can conclude that:

- * A regional approach to Mekong resource management is unavoidable, and from many aspects preferable. In both bio-physical and socio-political terms, interdependence is increasingly

recognised. A ‘regional governance’ approach – in contrast to solely a sovereign approach – is needed in order to improve resource management in the Lower Mekong River Basin. This does not imply that states have to yield all power, but should rather exercise it with due respect for regional concerns and sustainable development, and actively seeking mechanisms for how to do this.

- * Since many livelihood systems, in this area, are operating with small margins, even ‘minor’ changes may have drastic consequences which are difficult to foresee. Environmental governance is, thus, too complex to be managed *ad hoc*; instead it needs a strong institutional framework and political trust. In spite of a long cooperation in the Mekong Basin, there are few examples of efficient environmental governance. Cooperation so far has been based on political consensus and inflated expectations of future economic gains, particularly for hydropower.
- * As we have noted in the report, there is a certain ‘crowding out’ effect at work, meaning that projects outside the Mekong Basin tend to be on a faster route towards realisation: i.e. environmental governance seems by some key actors to be perceived as more restricting than benefiting. Moreover, the fact that China is not a member of the MRC could be seen as a parallel process: it has chosen not to become a member – or actively engage in international river management – since engagement would be more restricting than benefiting. To change this pattern is a challenge for the MRC and others.
- * When viewed as a *minimalistic legal document*, the MRC Agreement is limited in its ability to address the Basin’s real problems. Thus its quality as a *comprehensive joint policy declaration* should be highlighted. There are diverging views on this in the Basin, with indications that its minimalistic (legal) qualities are preferred by some actors in certain situations.
- * MRC remains the only regional organisation/institution which has all the Lower Mekong Basin states as members and which acts under a joint agreement and with a long-term perspective. Despite several problems, there is a relatively high degree of positive interest – from member states and donors alike – in establishing some sort of environmental regime resembling what MRC has already started to create. In contrast with the on-going pursuit of massive hydropower (and other) plans, this constitutes a major paradox.
- * A transformation is occurring from ‘old’ project-based practices and aims, to ‘new’ programme-based approaches which include regional environmental governance as a key dimension. In the Mekong Basin, this transformation is so far largely taking place at the policy level and is not necessarily recognised by all key actors. There are, moreover, both theoretical (is it possible to balance up/downstream asymmetric power relations with promises of future mutual benefits?) and empirical limits (not everyone seems to acknowledge it) to this transformation.
- * In moving towards a programme approach, the MRC faces the risk of becoming marginalised – a risk it did not face as the prospective channel for multi-billion dollar projects. The National Mekong Committees are the key to preventing this marginalisation. The capacity and status of the NMCs, as well as the links between MRC and the NMCs, and between the NMCs and the line ministries, need, however, to be considerably strengthened. Failure to strengthen them – and failure to strengthen other means for conveying the substance of the work in the MRC to the national machineries – risks leaving the MRC in relative isolation.
- * There is a need for a pro-active, institutionalised body for conflict prevention. The MRC has the mandate and at least some of the competence for playing this role. This study has shown that the MRC can help to resolve regional conflicts. New controversies over resource-sharing are bound to happen again at some stage, calling for a pro-active role.

- * Given the trends outlined above, the hydropower site selection process is becoming increasingly complex and increasingly dependent on environmental concerns, something which might slow down the pace of construction of future hydropower projects and reduce the interest of donors/funders. At the same time, however, it is obvious that there is increasing pressure to generate more energy as a part of an inevitable modernity, putting even greater demands on institutions dealing with ‘regional environmental governance’.

There remains a ‘dissonance’ between the push for economic growth on the one hand and environmental and social concerns on the other. There is little room for a major pro-hydropower agenda when environmental and livelihood concerns are taken seriously. However, the purpose of regional environmental governance is to deal with this ‘dissonance’, and it can only be dealt with in a process of political good spirit, led by a robust institution, in a transparent process, and informed by a comprehensive knowledge base. The greatest hope for improved regional environmental governance, is the creation, in due course, of a full-fledged ‘resource regime’ (cf. Chapter 2), or as it was put to us in an interview with a key person: *‘the key is to create a common culture of responsibility in the Lower Mekong Basin cooperation’*.

7.3 Towards a Lower Mekong Basin resource regime?

One should not underestimate the work which has already been carried out to establish common norms and standards for resource utilisation. We are also aware that one cannot draw too far reaching conclusions from decisions made in a previous resource regime. In terms of the theory of environmental regimes, the Lower Mekong Basin and its actors do seem to be heading towards a more sustainable and genuine cooperation than is secured through an agreement alone; namely one where attitudes and behaviour in some areas are increasingly attuned. The MRC Agreement is of course a core aspect of a possible Lower Mekong Basin resource regime, but a lasting regime must go beyond the Agreement; this is, for instance, also what is happening in the positive interpretation of the WUP process. Let us review our findings in the light of what was said in Chapter 2 on the function of ‘resource regimes’.

The MRC Agreement has already succeeded as a *legal regime*. Although fine-tuning and further conceptual development is needed and is occurring, nobody currently denies the legal status of the MRC Agreement. It has arrived at a perfect time, as international law on water rights is being adjusted in a similar direction (cf. Salman & Chazournez, 1998), and thereby at least partly eluding the dilemma that environmental issues are not protected in international law (cf. Brunnée & Toope 1997). Key interpretations of the Agreement are now being institutionalised in the WUP and the BDP processes, as well as in the other MRC programmes.

In terms of *problem solving*, the evolving regime may be seen to be fairly successful too. Since 1995, when the previous deadlock on cooperation over Mekong issues was broken, it has ‘solved’ – or at least provided a certain security on – a number of problem areas: Cambodia has secured sufficient water so as not to worry about the sustainability of the Tonle Sap system; Vietnam has a certain guarantee that the delta will not be drained of fresh water in the dry season; Thailand does not, in general, have to face downstream vetoes; and Lao PDR has some room for manoeuvre for long-term hydropower development. All members have therefore solved their key problems. In the Se San/Sre Pok Basins, it has so far only managed to solve problems *ex-post*. A more pro-active, organic, problem-solving and conflict preventing capacity remains to be developed. However, if given due recognition, its programme approach may, in a structural sense, be preventing conflicts too.

As an *economic regime*, its success is more doubtful. It might be regarded as efficient in allowing economic growth in that it increasingly allows for individual states to change water flows and enter into major infrastructure construction without the prior consent of the other

riparians. That private sector, bi- and multilaterals can engage in various resource-related projects more easily now is a change in the same direction. The current regime has found a formula for allowing this without necessarily causing regional conflicts. It is, however, increasingly recognised that economic growth is not synonymous with development, and ‘allowing’ growth might very well hamper ‘development’, at least if it is not properly regulated, and at least for certain areas and people. In this sense, the regime may be too weak to regulate particular interests. On the other hand, a skilfully performed programme approach might very well prevent non-sustainable, environmentally disastrous growth and promote sustainable development. So, whether the evolving order is efficient as an economic regime is still difficult to determine, although it obviously has ‘succeeded’ in attracting great economic interest.

In a *normative sense*, the evolving regime is moving towards greater environmental sustainability, greater respect for ethnic minorities, more public consultation, increased attention to conflict prevention, and greater appreciation of professionalism in water management. In other words, greater sharing of benefits between current and future generations, and between different categories of people. However, it does not redistribute any goods and it has not yet been particularly successful in terms of changing anything on the ground in its programme approach, leaving the verdict on its normative capability hanging.

Finally, the key question is really whether MRC can succeed in becoming an *efficient political regime*. Will the programme approach – drawing on the WCD report, developed by the MRC Joint Committee, pursued by the Secretariat, communicated through the NMCs, and realised by the line ministries – be able to influence the behaviour of key political actors? Yet it appears to be moderately successful in this regard, as highlighted by this study. As also emphasised by this study, however, it definitely carries the potential. It should also be acknowledged that there is a certain restraint detectable, particularly as compared to previous plans. Another mechanism for influencing political attitudes is the one acknowledged by Haas (1992) and noted in Chapter 2, that ‘epistemic communities’ will emerge, where national interests will be over-shadowed by professional concerns. The MRC contains the embryo of this as does the process this report stems from, which has gathered professionals and enabled them to discuss key problems in a good spirit.

Yet, the process we have studied constitutes only a part of the ultimate goal which, at the end of the day, needs to involve China. Currently it is difficult to see how this would occur, but attempts in this direction need to be process-oriented, and there seem to be far higher chances of drawing China into a regime built on trust and mutual benefits than into a strict legal formula. In this sense, the tendency among some governments in the Lower Mekong Basin to emphasise the MRC Agreement’s legal dimension and to downplay its policy dimension is detrimental.

7.4 The way forward – measures and concepts

The interconnections between various ecological systems, resource utilisation, and different political systems in the Lower Mekong Basin are really too complex for anyone or any single theory to fully describe, and even less to accurately foresee how they will change. We are bound to work through a process of continuous change, still dependent on trial and error. This study has no explicit ambition to outline future actions. However, believing in the need, possibility, and utility of regional environmental governance, we can give some guidance as to the direction in which we think the cooperation should be heading. This can be achieved on two levels: firstly, and most simply, we advise on *measures* that need to be taken given our understanding of the situation. These measures, or recommendations, could fairly easily be translated into concrete actions/projects (and some already are to some extent). Secondly, and more ambitiously, we discuss concepts, their content, and the implications for environmental governance. This attempt at probing

deeper into the overall debate on what development might mean in relation to the topics studied here, is of course open to further debate. Our main justification for including them is to be found in the conviction that in order to decisively and sustainably move forward and deal with the very complex challenges that emerge in the Lower Mekong Basin, these kinds of in-depth issues need to be debated at some point.

Thus, in terms of *measures*, it follows from the above that:

- Regional environmental governance should be integrated into all major actors' environmental policies;
- EIAs should be complemented by SEAs (Strategic Environmental Assessments), emerging in a more comprehensive guise and with a more pivotal role;
- The MRC Agreement should be seen as a 'joint policy declaration', and not as an obstacle to be bypassed;
- MRC's new agenda is grounded, progressive and needs to be taken seriously by decision-makers in the Lower Mekong Basin and donors alike. The new round of hydropower projects will be the key test of its possible success;
- MRC, as the only institution with (anything like) a regional 'governance' mandate, must become an authority in its technical capacity, and evolve into, *inter alia* a robust pro-active institution that can resolve conflicts, spot resource related livelihood failures, and foresee qualitative and quantitative natural resource scarcities;
- The connection between the MRC and the various state machineries – normally understood as the NMCs – needs to be vastly strengthened and dynamised. This strengthening, however, also needs to be supported from within each national government;
- Even if successful with such strengthening, MRC will need to assume a more organic and pro-active role in order to 'reach out' in a meaningful way to its member governments' state administrations;
- Finally, the long-term goal for the region must be to establish an efficient 'resource regime' where purposes, underpinning principles, rules and regulations are commonly understood and accepted, where goodwill is reciprocated and where this is collectively acknowledged.

However, what is probably a more profound, and more difficult, challenge is to address the fundamental changes in resource management that we have discussed many times in this report. In discussing these 'bottomlines' – unavoidable if thinking of long-term sustainability – one inevitably needs to go beyond the obvious scope of this report. This would mount to a rethinking of a number of *key concepts* and indirectly to a change of how we think about (and thereby act) on these issues, and possibly on 'development'. Below follows a few propositions, which have been provoked, although not necessarily proved, by this report. These may serve as food for thought in the continuous debate:

- *Poverty is not eliminated by economic growth.* Although growth might be necessary for alleviating poverty, it is not sufficient on its own. To make hydropower contribute to national economic growth may be easy; to make it contribute to the broad-based alleviation of rural poverty, will require very specific measures. We have not seen these measures being provided. Without these measures, further hydropower development on the Se San is likely to *produce* local poverty rather than *alleviate* it.
- *Modernisation does not equal development.* Modernisation may be an attractive long-term goal for most, but a modernisation where people are marginalised and impoverished, and where cultures are destroyed, hardly represents qualitative development; at least not for these

peoples and cultures. Hydropower interventions might represent, or even to some extent ‘deliver’, modernisation, but other types of project are needed, at least as a complement, for achieving broad-based qualitative development which enriches the opportunities of the poor and disadvantaged. It seems, for example, reasonable to argue that people living in the Se San Basin are in greater need of education than cameras, and improved agricultural production methods than electricity.

- *Interdependence challenges existing conceptions of sovereignty.* Development strategies based on (strict) national self-sufficiency and national sovereignty seem increasingly counterproductive in a globalising world and particularly in ecologically interdependent systems. Although difficult only one generation away from colonial independence, regional cooperation needs to reflect the inevitable mutual dependence which this implies. This puts a strain on hydropower development, and on individual states’ room to manoeuvre. As we have seen, dealing with conflicts after they have erupted is more burdensome than preventing them. Sophisticated and successful regional governance serves as both conflict prevention and project facilitator.
- *Holism rules over vested and particular interests.* Single big projects will neither change any country’s structural position in the world economy, nor even tangibly provide national development. Instead, strategic interventions in dynamic sectors and processes might make a difference. Hydropower interventions tend to be large-scale, demanding huge investments, crowding out other investments and reforms, and only benefiting particular interests (cf. MRC Hydropower Programme). Imagine that one billion USD had been invested in eco-tourism in the Lao-Vietnam-Cambodia corner. To us it seems likely that that would have allowed for a more sustainable, local, dynamic, and shared development.
- *Human resource development is more important than resource exploitation.* Globally, no successful development process in the last five decades has based its success on large-scale harvesting of natural resources. Instead, investment in human capital, and a limited dependence on natural resources have paid off (e.g. Japan, Taiwan, South Korea; cf. World Bank 1993). This could be an argument for redirecting investments to education and healthcare, rather than expensive physical infrastructure investments.
- *Food security is critical for industrialisation.* No country in East Asia, famous for rapid industrialisation, has industrialised without first having an efficient agricultural sector producing a cheap and reliable food supply (Ronnås, 1996). Food security seems thus to be more pressing than any shortcut to industrialisation through massing up cheap energy. Unless a comprehensive and holistic approach is taken (cf. MRC Environment Programme, Chapter 1), hydropower projects risk decreasing food security, particularly through reduced fish catches and inundated farmland; only in rare cases do they lead to substantial overall irrigation-led food production increases (Adams 1992; McCully 1996).
- *External costs must be internalised.* If hydropower is attractive due to the incomes it generates at the national level, it is reasonable to include in the balance sheet the costs it inflicts locally and regionally. There should exist an articulated idea of who is shouldering which costs and why. Obviously, judging from what we have studied, there is a deficit in this kind of thinking.
- *Ecosystem services provide real value.* These may be taken for granted, but they are neither immune to disturbances, nor are they easily replaced. If they can be replaced, there is still a cost, for someone, somewhere. Who shoulders the cost for future cumulative environmental effects, should they appear?

Thus, hydropower interventions are difficult to handle properly in a context such as the one in the Lower Mekong Basin. This is not so strange, since its resource base is crucial for the livelihoods

of tens of millions of people, and hydropower represents an intervention into the existing order. To do this is no small thing. However, the key is how it is being dealt with and how successful the attempts to regulate it through regional environmental governance are.

There is a range of new hydropower projects emerging in the Lower Mekong Basin. How these are treated will be the first real test of whether the work on regional environmental governance, particularly the work done by the MRC, ultimately dictated by the MRC Agreement, makes a difference in terms of environmental standards and social concerns – and whether the great investment in regional institutions is worth the cost.

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Letters

- From ADB President to CAA Director, 18. Aug. 2000 about the defer of Se San 3 Hydropower of Se San 3.
- From ADB, Yoshihiro Iwasaki to CAA Director about the Se San 3 hydropower dam.
- From CAA Director to ADB President about asking ADB to defer decision about Se San 3.

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