ASSESSING ENVIRONMENTAL GOVERNANCE IN THE LOWER MEKONG RIVER BASIN: A STUDY OF THE HYDROPOWER SITE SELECTION PROCESS IN THE SE SAN AND SRE POK BASINS

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1. Introduction

This case study has been undertaken within the Mekong Regional Environmental Governance project, which is an integral part of the Resource Policy Support Project (REPSI).2 The study will analyse issues related to regional governance of natural resources, and in particular the role of key institutions and organizations. The specific empirical focus of the case study is to understand the hydropower site selection process in the Se San and Sre Pok basins (see map), in the upland areas on the border of Laos, Vietnam, and Cambodia. It aims to understand the role of various actors in the site selection process and to evaluate to what extent the existing institutional processes have been (and are) adequate for promoting sustainable environmental governance. The outcome is an analysis of the process of hydropower site selection, which brings to light the forces exerted by the different actors and institutional structures that have had an impact on the end-result. The Mekong River Commission (MRC) Agreement, and its signatory institutions, is the key institution under scrutiny, but the study also evaluates the role of other key actors and institutions vis-à-vis the MRC.

1.1 Rationale and Relevance—Why this Particular Case Study?

The case study’s particular focus, hydropower development in the Se San Basin, is a sensitive issue. Regional environmental governance has gained prevalence and urgency in the last couple of years in the Lower Mekong River 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 increased considerably. The hydropower sector is chosen because it is frequently said to “drive” the planning of future interventions in the Basin, and because 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 and Torell, 1997). Hydropower also constitutes by far the greatest attraction for large-scale, international intervention, which sometimes appears to feed the entire hydropower sector (cf. Usher, 1997).

Various versions of hydropower development plans are configured in the development plans of the respective countries. It is also obvious that many hydropower schemes can cause direct transboundary impacts, evidenced, for example by the recent episodes of flooding in Cambodia from the Yali Falls Dam in Vietnam. The corner of Cambodia-Vietnam-Laos, comprising the Se San/Sre Pok Basins, has for a long time been viewed as “suitable” for early interventions (SWECO, 1999; Halcrow, 1998; WATCO, 1984; The Mekong Renaissance Team, 1961). This push for hydropower development in these basins is further reinforced by the fact that interventions on the mainstream seem politically impossible. Major hydropower projects are becoming utterly complex, caught between “development” and modernization 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.

Two typical positions can be identified: the first would be a “pro-hydropower” position, arguing that “we must build, but we shall do it as well as possible,” as a senior specialist at the Interim Mekong Committee (IMC) expressed it in 1993. The opposite would be that it is “impossible to manage a river” and that

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every intervention adds negative value to the overall ecosystem—although certain actors might benefit
from it (McCully, 1996; cf. Hinton, 1996). (These opposing positions can quite easily result in
incompatible development strategies if they are not dealt with—hence the need for governance.) The
regional approach is motivated not only by the shared and interdependent natural resources but also by
growing economic, demographic, and political interactions within the countries.

After this introductory discussion, the next section of the report reviews some fundamentals of the Lower
Mekong Basin cooperation as well as some theoretical positions on environmental governance. The
subsequent section reviews the “historical patterns of hydropower planning” at a generic level before it
becomes more specific and presents the hydropower site selection process in the Se San Basin. In section
five, the report discusses the role of different actors in this process. The final section attempts to draw
some overall conclusions.

1.2 Objectives and Methods

By viewing an empirical process—that of the prioritization of hydropower sites in a particular part of the
Lower Basin—the study analyzes to what extent regional governance is, or could be, important, and to
what extent the key actors view this as important and act accordingly.

The objective of the report is to assess if, and in which way, regional environmental governance operates
in the Greater Mekong Sub-region (GMS). The specific research questions are:

- What are the historical patterns of hydropower site selection in the GMS?
- What have been the decisive factors for the process of hydropower site selection in the Se San
  and Sre Pok Basins?
- How does this selection process relate to the actors and institutions in the Lower Mekong River
  Basin?

Following a conceptual and contextual chapter, the specific questions above are addressed in chapter 3-5
and in combination, the answers to these questions provide a basis for a discussion on regional
environmental governance in the Lower Mekong River Basin presented in the concluding chapter.

A number of different categories of sources have been utilized for this work. As part of the fieldwork, a
series of open-ended, semi-structured interviews have been conducted with key people, either in various
regional bodies, or in national ministries in the four countries. Relevant statutes, policy papers, and
program declarations are revisited. Previous analytical studies and existing consultancy reports on the
issues have also been assessed. Finally, visits were made to the key area in this study, Ratanakiri Province
in Cambodia, to identify local perceptions.

2. Background and Context

The changes in environmental governance in Mainland Southeast Asia over the last five years have
demonstrated an increasing dissonance between the progressive development both within resource politics
and in the overall regional politics, on the one hand, and the continuation of seemingly environmentally
unsustainable plans and processes on the other. The governance of the natural resources of the Lower
Mekong River Basin is important for local livelihoods as well as for national development and regional
relations. The “governing of the commons” (Ostrom, 1990) is an age-old problematique, involving both
conflicts and poverty issues. In the light of increasing scarcity situations and with the increasing
interdependence—as in the Lower Mekong River Basin—this field has both gained renewed attention
and has been transformed into the even more challenging issue of regulating international commons (cf.
Young, 1994).

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1 In reality, focus is on the lower part of the basin.
2 Although the resources in the Mekong Basin are “common” to the riparians, 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.
The two characteristic features of an (inhabited) international watershed (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 for how this sharing should be done. The classical dilemma is the “Tragedy of the Commons,” popularly spelled out by Hardin (1968), stating that all “commons” will be overexploited (and therefore under-delivering) if no coercive authority controls the situation. The logic behind this is that each user sees its own benefit in the use of 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, while at the same time spontaneous creation of such regulating institutions is rare (Olson, 1965; cf. Ostrom, 1990).

The exception, or rather the case where collective self-regulation might function, is where there is an overarching political/ideological consensus that includes all actors in the system. This was the case in the early days of the (Lower) Mekong cooperation—all governments being anti-communist—minimizing the need for regulation and maximizing the chance of “spontaneous” cooperation. However, in the absence of such a political/ideological consensus—as in the early 1990s and henceforth—the need for regulation increases dramatically. For instance, anti-communism is not a joint goal anymore (and neither is it relevant) and in terms of development ideologies, large-scale, modernist development is not unquestioned any longer (cf. Öjendal, 2000). Moreover, water, previously viewed as abundant in the Mekong Basin, is becoming scarce in certain places and at certain times of the year, creating competition for the resource.

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, 1995). This is not to say that the GMS is governed without governments, but implies that there is no single government or cluster of governments that can exercise its will. Instead a situation appears where there is a multitude of interdependent structures and actors aiming to govern—or at least to influence the situation. Nevertheless, in their entirety they appear outside any single jurisdiction, and no government can claim sovereign right to taking decisions on mutually interdependent watercourses (cf. McCaffrey, 1998). Lacking credibility in any single source of governance, one is bound to aim at creating frameworks—or “regimes”—for environmental governance. “Regimes” are, according to an authority in the field, “social institutions consisting of agreed-upon principles, norms, rules, procedures, and programs that govern the interactions of actors in specific issue areas.” (Young and Levy, 1999: 1). Not only are the various countries interdependent, they are also entangled in the international political economy where multilateral institutions, aid donors, foreign consultants, regional bodies, and others are heavily involved in the process.

The resources in question should, however, be viewed as “shared” rather than common (Young, 1994; Öjendal, 2000), and the obvious solution to conflicting interests is, Young writes, to establish “joint management regimes” (1994: 22). 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 also is the case in the Mekong Basin. Rather, a competent and well-resourced basin-wide organization, including governments, which reflects a wide array of interests and aims to create an environmental regime where modi operandi are slowly being established, could be seen as an ideal combination of what is desirable and what is attainable, and as a way of outlining the practices constituting an “environmental regime.”

We propose that the current interaction over environmental issues in the Mekong Basin is constituting the formative stages of an environmental regime. This is also what some key persons are hoping will occur in the creation of future MRC cooperation (Int. 1), as opposed to counting on any strict “legal” and/or coercive structures ever being efficient. Regimes are, however, not necessarily good in themselves and will certainly not solve the problems in any simple and straightforward way. Young and Levy continue, “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” (ibid).

Moreover, the idea of water as a key resource is intrinsic to the concept of the international watershed. At the same time, however, the idea of watershed, as opposed to “watercourse” for instance, takes a broader range of resource issues into account. The key question is then perhaps what a watershed regime should accomplish; a question which was central during the formative stages of the MRC Agreement with arguments ranging from a “pure” water body to a full regional development authority. It appears that the MRC found itself in a situation with a mandate that went far beyond only dealing with water, but that was also far from a general development mandate (cf. Miller, 1996).

Another key element of the watershed is that there is an unavoidable asymmetry in that upstream states almost always have a lesser interest in regulating resource utilization, 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 compensated 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

This requires, however, stable institutions and political impetus. Thus institutions constitute a large and important investment in society; particularly, some would say, in an international society where power politics might be the alternative. Others would argue that this is the case in a situation characterized by lack of social consensus and a firm knowledge base (cf. REPSI MREG Component C-1). Interestingly, the institutionalized cooperation in the Lower Mekong Basin has been labeled 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 a real test.

In the 21st century, with all likelihood, competition over natural resources will increase globally as well as in the Mekong region, and both the institutions and the cooperation are more crucial than ever. A key aspect of the above concerns is, to follow Young, how we design our institutions and what type of governance they are able to exercise (Young, 1995). Empirical research shows that there is a huge difference in outcome dependent on how “environmental regimes” are constructed (Young et al., 1999: 1; see further below). This, we believe, will also be the case for the outcome of the institutionalized Mekong cooperation.

3. Identifying Historical Patterns of Hydropower Planning

In spite of the long-standing cooperation, or possibly due to this, the Lower Mekong Basin is largely unexploited by large-scale development projects. This is, however, not due to lack of potential since the prospected value of the river basin’s water resources is immense; particularly in relation to hydropower development, where the most optimistic assessments estimate the potential to be an enormous 505 TWh/year (IMC, 1989: 9). Huge plans have been made (ibid) and scattered projects have been
implemented, but the realization of any masterplan or of any mainstream project has so far been impeded, largely for political reasons. Being originally conceived as a “political tool” for mutual development (in the 50s and 60s), the Mekong cooperation soon found itself having problems that were expanding in pace with the socio-political problems of the region. Since the mid-1960s, the political forces in the region and/or the institutional set-up have been in disharmony, and any major undertaking in terms of, for instance, hydropower station construction has consequently been impeded.

The 1970 coup in Cambodia initially opened up more collaboration with the riparian countries and closer ties with other countries such as South Vietnam and Thailand in order to unite against the communist forces. As a result, the northeast provinces in Cambodia were increasingly targeted by the Mekong Committee (MC) for hydropower studies in the early 1970s. Most of these studies were mainly desk studies due to inaccessibility by road and widespread warfare (Mekong Secretariat, 1973). In the 1970s, the Mekong Committee devoted much of its resource planning to 180 dams on tributaries of the Mekong River, including dams in the Se San and Sre Pok Basins that had been identified in the Masterplan of 1970. Despite the spread of war across Indochina, planning for the large-scale development in the Mekong Basin continued. However, in 1975, with the Khmer Rouge coming to power in Cambodia, the process was broken. In spite of this, MC/IMC spent considerable resources in putting together an ambitious plan for building eight mainstream dams, which was presented in the revised Masterplan of 1987.

In the early 1990s, in retrospect, it was obvious that since the mid/late 1960s there had not been any real chance of getting the MRC (at the time, MC or IMC) operational in the sense that was originally envisaged. This was further emphasized when the previous consensus on the statutes of the original Mekong Committee broke down in 1992 and 1993. 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). In spite of major difficulties, this process was eventually successful, with a heavy-handed involvement by the donor community, coming up with the MRC Agreement in 1995 (ibid).

The Agreement institutionalized future cooperation over the Mekong resources through the Mekong River Commission (MRC) and its Secretariat (MRCS). It was more liberal than its predecessor in terms of water use and most importantly, it eased the de facto downstream veto right which previously had 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 that have not been resolved, but have instead been imbedded in the deal. Article 26, actually sums up the 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 the Cooperation for the Sustainable Development of the Mekong River Basin, 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 Basin Development Plan (BDP) has not even passed its definitive conceptualization. The Water Utilization Program (WUP) is, however, under way, although it is reportedly a politically challenging process.

In a more generic sense, however, the Agreement included three overall and partly contradictory implications of direct relevance to our study.
3.1 Introducing the “Soft” Issues in the Mekong Co-operation

A number of progressive dimensions, such as regional water regulation, environmental protection, and conflict resolution were included, formalized, and institutionalized. Thus the ground was laid for more “responsible” and more environmentally sensitive governance of the Lower Mekong River Basin, or as it was phrased in the first article of 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, Article 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 among the four parties, prohibiting any party from choosing freely whether 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.

3.2 Opening up the Basin through Invitation

The second change would be that the historically most important impediment to large-scale development cum exploitation of the river basin’s resources - i.e. regional conflicts - was resolved. This opens opportunities for a wide array of economic and political interests, both government and private initiatives, but it also increases the risk of environmentally degrading activities. In fact, this process had already started during the period of institutional stalemate in the Mekong cooperation.

Most significant of the “external” initiatives was (and is) the GMS initiative by the Asian Development Bank (ADB), beginning in 1992. This came to rival the self-evident right to first initiative and “control” the MC/IMC had held before and which, it was assumed, it would regain. Both before and after 1995, whether we consider financial flows or political commitment, it is clear that the GMS has drawn the lion’s share of the attention from the regional actors, in terms of development interventions in the Mekong Basin; it has particularly succeeded in engaging all six countries in the Mekong Basin.²

The Bank sees itself as a “facilitator” in the process and aims to provide technical and logistical support, but also argues that the private sector has to do the bulk of the investments in joint investment conglomerates or through various BOT and BOOT formulas.³ This “vision” has opened up for huge levels of investments and provided a “detour” for the otherwise increasingly successful work with

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² The GMS Economic Cooperation Program 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 program. “The ultimate objective of the Program is to facilitate sustainable economic growth and to improve the standard of living of the people in the subregion.” (ADB, 19XX). It aims to: (i) realize 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.

³ Nam Theun II could be seen as such a joint undertaking, mixing public and private investments. For a while it looked like Se San 3 would be subject to similar plans. BOT and BOOT are ‘Build-Operate-Transfer’ and ‘Build-Own-Operate-Transfer’, respectively, which would allow the private sector to get involved in financing, make their profit and eventually hand over the projects to the concerned state.
establishing regional norms and procedures on environmental protection. This has drawn severe criticism from various advocacy and environmental organizations in the region and elsewhere, and has served to dilute the influence of the MRC(S).

The ADB in general and the GMS program in particular have come under criticism from NGOs, who argue that the market-led paradigm of economic growth that the GMS Program promotes primarily benefits the private sector and export-oriented industries. Their contention is that the “trickle-down growth” does not work. In context of large transportation (roads) and hydropower projects the issue of the displaced communities bearing most of the costs and not being project beneficiaries is also highlighted. In November 1999, the Bank 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.” An internal impact evaluation study of the GMS program also emphasized the need for co-ordination mechanisms with the MRC, and ADB and MRC have since signed a blanket cooperation agreement.

3.3 From Project to Program Support

A third, crucially important, consequence that was expected to take effect directly after the conclusion of the MRC Agreement, was that the previous project approach would be turned into a program approach. Although it was not the intention to have a project approach in the initial Mekong Committee, many projects that were planned were in themselves so big that they became regional concerns and came to define the regional agenda (like the “cascade” of dams on the mainstream). From this point on, the tendency for the regional body to be the driver of individual projects would be replaced by an approach that aimed to establish guidelines, lay down rules and regulations, develop sector programs, and provide technical assistance.

As a result, for instance, an irrigation program, a fisheries program, and an environmental program have been developed. A hydropower program is in the pipeline. These programs are supposed to guide the member countries in their interventions in the GMS. The Environment Program, for instance, serves to improve project quality, enhance overall environmental awareness, strengthen institutional capacity to protect the environment, and support national planning. Integrated in this work is a number of externally funded and ran studies such as the Wetlands Program (Sida), the Danida Environmental Program, and the Strategic Environmental Framework, initiated by ADB. This new approach came into play only in the late 1990s, but is now supposedly resulting in a major change for Mekong environmental governance. In fact, with the development of a program approach, certain visions of the WUP/BDP and the “regime analysis” advocated in this paper partly coincide.

3.4 State-of-the-art Environmental Governance, 2001

The three-way structural change considerably altered the shape of things for Mekong environmental governance, increasingly “allowing” interventions but at the same time giving rise to stronger possibilities of shaping institutions for regulating resource utilization. These changes have, however, not been problem-free. This is evident in the pervasive criticism that has been directed towards planned and actual interventions (cf. Usher, 1997; McCully, 1996; Watershed, various issues; SEI and 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 River Basin such as the Pak Mun Dam in Northeastern Thailand, Nam Theun II in Laos, and Yali Falls in Central Vietnam. It seems evident that mistakes have been made in relation to both degree of participation and consultation, and with regard to impact assessments (World Commission on Dams, 2000; Watershed, various issues; Fisheries Office, 2000). These mistakes, of course, reflect negatively on the judgement of the effectiveness of the existing regional environmental governance institutions. 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). The post-1995 Agreement should be capable of preventing failures of this kind; it might however also be the case that it is not.

Observing the increasing demand for additional energy in all riparian countries, the construction of more hydropower plants is called for (see below), while at the same time a strong case is made by the critics that every major hydropower station will have problems similar to the ones mentioned above (e.g., McCully,
It now appears that due to the difficulties with, and mounting criticism of, mainstream interventions, less populated areas along the tributaries are being sought for new hydropower projects. A preliminary decision has been taken on starting the process of identifying a number of dam projects (cf. Watershed, November 1998; cf. SWECO, 1999; cf. Halcrow, 1998). Moreover, a dam with obvious international impact has recently been completed on the Se San (The Fisheries Office, Ratanakiri and NTFP, 2000) and this will have future governance demands. The proposed dams are the first series of dams with direct transboundary and major environmental impact under the new MRC Agreement, and as such are suitable as empirical input for judging the efficiency of this new governance instrument.

The trend that “new” projects are pushed into marginal areas—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. Hasselskog et al., 2001). The consequences of a lack of such institutions is in essence what was observed at the opening of the Yali Falls dam in early 2000, which resulted in a number of casualties and a degenerated resource base. But, in the aftermath of the opening of the dam, it became evident how MRC could play a role in a conflict resolution capacity.

The overall uncertainty for the future is how the desire to regulate resource interventions in the Basin and various particular interests will balance each other: to what extent will the existing environmental policy tools—the MRC Agreement, national environmental policies, and donor demands on 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 source 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?

4. The Historical Evolution of the Plans for Hydropower Development of the Se San River Basin

There were originally three major initiators for the Mekong development projects: they were the UN body the Economic Commission for Asia and Far East (ECAFE), the participating national governments, and US interest to consolidate and support the non-communist forces in the region. The entire Lower Mekong River Basin was studied in the late 1950s (cf. “the Wheeler Report”) for large- and medium-scale development projects. These studies also covered the Se San, Se Kong, and Nam Theun River Basins.

4.1 The Process of Project Identification

In the report published in the early seventies, the Mekong Secretariat first identified the sixteen possible hydropower development sites on the Se San River Basin, including five projects in Cambodia, ten in Vietnam, and one international project. In the Sre Pok River Basin, fifteen sites were identified, including five sites in Cambodia, nine in Vietnam and one international project (Mekong Secretariat, 1973). In 1984 the revised plans by WATCO, in collaboration with the IMC, 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 River, the study identified 12 hydropower projects.
projects and 12 irrigation projects. Two-thirds of the power potential was located in the upper Sre Pok in Vietnam, while nearly 80 percent of the irrigation potential was located in Cambodia.

In the Se Kong River Basin, fourteen hydropower projects have been identified, four of these with potential for irrigation, of which all were located in the Laos part of the basin (WATCO, 1984). The study concluded that there was potential for hydropower upstream on the Se San and Sre Pok rivers in Vietnam, whereas downstream in Cambodia there was a lack of favorable conditions. These projects were identified at a time the countries in Indochina were in a state of war, so the studies had only scant knowledge of the proposed projects involved; some of them were not viable either economically, socially, or environmentally, and none of these schemes were built until 1993.

One of the first major activities undertaken by the GMS Program was a Subregional Energy Sector Study for the GMS to identify project and investment opportunities. The study was finalized in 1995, and among other things established a Subregional Electric Power Forum as part of the institutional framework to sustain and implement its recommendations. Six projects identified by the study related to hydropower development, five for basin and feasibility studies to identify projects and one implementation project (Theun Hinboun).

In the 1990s, the Vietnamese government updated the plans for the Upper Se San, and some of the schemes were proposed for construction. In the early 1990s, the ADB funded a study on the Subregional Energy Sector, covering the GMS region, which was completed in November 1994 and recommended hydropower development in the Se San, Se Kong, and Sre Pok basins. 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 the consultant firm Halcrow (Halcrow, 1998).

The SKSSNT study was completed in two phases and involved in total 37 proposed schemes, which were located in either the Se Kong, Se San or Nam Theun River Basins. After initial ranking, the four dams selected for further studies on the Se San River Basin were: Se San 3, Se San 4, Lower Se San 2, and Thoung Kontum. But political reality—reportedly having rationalized that the proposed schemes would be candidates for beneficial soft loans brokered by the ADB, therefore turning projects worthwhile—dictated that the list be revised to enable each participant country to have two priority projects (TERRA Briefing, April, 2000). Eventually, the six projects that were recommended for further study in phase two on the Se San River Basin included Lower Sre Pok 2 and Lower Se San 2 in Cambodia, Se San 4 and Upper Kontum in Vietnam, and Xe Kaman 3 and Nam Kong 1 in Lao PDR.

After several additional studies (including SWECO, 1999 and Halcrow, 1998), the most likely schemes to be realized in the upper Se San River (in addition to the Yali Falls) appear to be the Se San 3, Se San 4, and Upper Kontum. The Se San 3, recommended by most consultancy studies, is located in Vietnam, about 50 km from the Cambodian border, and will generate 260 MW. The Se San 3 decision-making process has been complex and stop-go in nature. After early discussions, the ADB was skeptical about Se San 3, but at a later stage it was reconsidered. The ADB then commissioned a project entitled “Preparatory Technical Assistance” to prepare the Se San 3 for construction by the end of 2000, despite the fact that the project appeared in the development plan of the ADB’s SSSKNT Study phase one for 2006 and had been proposed for construction after the Se San 4 in the SWECO Study (TERRA Briefing, 2000). It was, at this stage, intended that the Se San 3 be developed in partnership with the private sector.

Following the Yali Falls incident in January 2000, the ADB launched the idea of building the Se San 3 (downstream of Yali) as a model project which would mitigate the Yali Falls impact. This was regarded favorably by the Vietnamese government at the time. However, the pressure from international donors urged 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. However, in an announcement on April 11, 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). At this stage, it is unclear which environmental standards will be applied and what degree of regional
consultation is being undertaken, but there is a risk that the plans will move ahead with little attention to environmental concerns, especially those far downstream.

4.2 Current Plans

Se San 3 is controversial and has received a wealth of criticism. 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 understates, it argues, the project cost by ignoring the interest charges during the year of construction. The critical report concludes that the SWECO study should not be the basis for investment decision-making (ibid).

The Se San 4 is the furthest downstream of the Se San mainstream schemes in Vietnam. This dam is located approximately 8 km from the Cambodia border. 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. The project was recommended for medium-term development by SWECO (1999).

The Upper Kontum scheme is located on the Dak Nghe River, an upper tributary of the Se San in Vietnam. The dam site is about 40 km northeast of Kontum town. This dam would divert water from the Dak Nghe River, an upper tributary of the Se San River in Ko Plong District, Kontum Province, 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 radically alter water flow, both in the Dak Nghe and Se San Rivers. 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 severe hydrological impacts were identified. It was also listed as a priority project for medium-term development by SWECO. The regulation on inter-basin transfer of water in the MRC Agreement, and its inherent complexity, has been little regarded. In fact, the MRC Agreement is quite a flexible document, but in terms of inter-basin transfers, it is quite strict, disallowing transfers during the dry season.

Apart from the dams envisaged for the Se San River Basin in Vietnam, a small number of projects have also been proposed for the Se San Basin in the northeast of Cambodia. These include the Lower Se San 2 and the Lower Sre Pok 2. 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 proposed dam is questioned it is still included as a priority project, 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 is located just below the town of Veun Sai, which would be inundated, as would the river and surrounding lands all the way up to Vietnamese border. The Lower Sre Pok 2 scheme 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 an important 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.

4.3 Conclusion

To sum up, in 1997, SIDA funded the SWECO Master Plan for hydropower development in the upper Se San River Basin, completed in 1998, which considered 24 possible dams in the Se San Basin in Vietnam and recommended four, including the Se San 3 dam, for “medium-term development” (Baird, 2000; TERRA, 1999c). At the same time, the ADB, financed primarily by the French government, funded the SSSKNT River Basin hydropower study, which was conducted by Halcrow and Partner in association with EPDC International, Japan and MK Centennial, USA, and completed in 1998.
This process obviously leaves a lot of questions unanswered. For instance, we have failed to understand how, in essence, the SWECO study differs from the Halcrow one. Moreover, none of these studies have apparently made any reasonable effort to consider the impact of funding support for hydropower development in the Se San Basin in Vietnam in terms of downstream impacts in Cambodia, and possibly even broader impacts affecting the Mekong Basin at large. The Cambodian Government was obviously insufficiently informed regarding the support for Se San Basin hydropower development in Vietnam. Finally, both studies were dominated by technical and economic concerns; neither assessed, in any depth, the wide variety of possible impacts that always come with hydropower projects, and who would bear the costs of these.

5. The Different and Differing Role of the Actors

The decision-making process for site selection in the Se San is a complex interplay of a range of actors, exercising their formal mandates but also promoting their own interests, legitimate or otherwise. The actors have included national governments (ministries of planning and investment, water resources ministries, ministries of industry, etc.); public utilities (Electricity of Vietnam, Electricity Du Laos); Asian Development Bank; bilateral donors (Sida, Norad.); consultancy and construction companies (SWECO, Halcrow, Norplan, Statkraft), international investors (Nordic Hydropower, owned partly by Statkraft) and equipment suppliers. Notably unrepresented are NGOs and grassroots interests, except as fierce critics. Let us dissect which role these actors have assumed in this process.

5.1 The Role of the International Financing Institutions

Sovereign among the International Financial Institutions (IFIs) in this field, the ADB has, through its GMS Program, funded two major preliminary technical and economic feasibility studies, which have influenced the site selection process in the Se San and Sre Pok. 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 and two in Cambodia on Se San was seemingly more motivated by political considerations. 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 an option to other sources of power and/or demand-side management to meet the power demand forecasts.

ADB had considered co-financing the Se San 3 project. Both the reasons for co-financing, and the motivation behind ADB’s subsequent decision not to support the project are open to speculation. It is, however, evident that the ADB is increasingly playing a facilitation role to forge public-private partnerships for hydropower financing. It is also obvious that it exerts considerably more influence on the decision process than it is aware of, or even acknowledges. In the near future, the ADB GMS program 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 and also the decrease in the demand for power in the sub-region after the economic crisis in Thailand (“GMS Assistance Plan 2001 to 2003,” ADB, 2000). A “Strategy for Hydropower Development in the GMS” is, however, in the pipeline (ADB, 2000).

5.2 The Role of the Consultancy Firms

The influence and role of large consultancy firms from developed countries, closely linked to the hydropower industry in developing countries, has been increasingly coming under scrutiny (Lang et al., 2000; cf. Usher, 1997). However, even when there are no vested interests, criteria for what is “good” and what constitutes “development” tend to be solidly rooted in either technical/economic considerations or simply in a short-term view of the modernisation paradigm. At the same time, however, consultancy firms retain valuable skill and competence.

In the case of Vietnam, two major technical studies have been undertaken. These include the Review of Master Plan for Se San and Feasibility Study of Se San 3 Hydropower Project, and the National Hydropower Plan (NHP), which is still ongoing. The studies have been funded jointly by Sida and
Norad. The first was undertaken by a consortium of SWECO International (a Swedish company) and Statkraft Engineering (a Norwegian company) and the NHP study is being undertaken by SWECO, Statkraft, and Norplan. All of these companies are closely linked to the hydropower industry in Norway and Sweden, an industry once thriving in Scandinavia, but now surviving through international ventures (cf. Geary, 1997). Moreover, consultancy has turned into a more important dimension for this industry. The combination of playing a part in the planning process while at the same time being involved in implementation is ethically questionable.¹

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 rejecting development. The involvement of consultancy firms from developed countries, with higher standards and expertise related to environmental and social impact assessment improves the “sustainability” of such development. The increasing accountability of the bilateral agencies funding these studies for NGOs and interest groups in the home countries also increases the pressure for better performance on the consultants. In countries like Laos and Vietnam, where there are few NGOs, this becomes even more evident.

In smaller, poorer countries like Laos and Cambodia there is very limited capacity to actually absorb and manage the input of the consultants. As they 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 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 distort the decision-making process in favor of their vested, or otherwise particular, interests. Low levels of accountability among the government decision-makers, in turn, creates a “comprador elite” that is open to this influence, and in the long run they both benefit at the cost of local people and the natural resources they depend upon. Either way, in this process there is very little regard for environmental concerns (besides a rather manipulable EIA process) and even less for regional concerns.

5.3 The Role of Bilateral Donors

Many reviews of bilateral aid assistance have raised the issue of donor driven visions and agendas and consequently weak levels of ownership among the recipient countries. These agendas have often been “desirable” related to environmental protection, and are often beyond the immediate development priority of the recipient developing country. In other instances there has been a focus on sectors where the donor country has an established expertise base and commercial interest in promoting technology and equipment.

Bilateral aid agencies in countries with a history of hydropower development, and consequently a strong expertise and industrial base in the sector, have been active in supporting studies related to site selection in developing countries. In the long run, dam construction in developing countries has helped sustain the companies involved in construction, design, and equipment supply at home (Lang et al., 2000). Donors sometimes support planning—in contrast to construction—in order to rid themselves of criticism for supporting hydropower projects. However, it is obvious that without planning support, construction would not be feasible. In the case of Vietnam, for instance, joint funding from Sida and Norad has supported the two major studies that have influenced site selection in the Se San.

It should, moreover, be noted that bilateral donors are not necessarily monoliths, which makes it possible for them to work with seemingly contradictory aims. For instance, Sida has financed a number of studies, facilitating subsequent dam building, while at other occasions denounce hydropower as prioritized development activity. This is often difficult to understand/accept by actors in the region, be they NGOs or government representatives. Finally, bilaterals are more than anything else sensitive to the opinions in their native countries, as a result of which they become less and less interested in financing controversial

¹ In consultancy work in the development sector it is a generally practiced rule that you are disqualified from being a part of implementation if you have been a part of 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 the ones hiring the consultants, rather than the consultants themselves
hydropower projects. The only major exception to this rule would be the Japan International Cooperation Agency (JICA), who still seems interested in financing dam construction on a broad scale.

5.4 The Role of National Governments
Ultimately national governments are the key decision-makers with regard to dam construction on the Se San and Sre Pok. In Vietnam, hydropower development appears to be high on the power sector agenda. A paper on 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 the emphasis on exploiting hydropower as a key element of the power sector strategy.

The growth in demand for power in the period 2001 to 2020 is estimated to be 10 to 11 percent annually, and peak demand is expected to grow from 4800 MW in 2000 to somewhere between 27,000 and 32,400 MW in the same period. Approximate hydropower installed capacity at the end of 2001, 4100 MW, is expected to grow to 12,000 to 14,000 MW in 2020. The bulk of it will be in Northern Vietnam (including Song La, 3600 MW and Hoa Binh, 1920 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 raises concern over conflict of interests in such situations, where typically demand forecasts have been overestimated and there has been an inherent bias towards large-scale projects to meet the wide gaps between the project demand and installed capacity. This inhibits an objective assessment of alternatives to meet the demand.10

MPI is the key agency in the preparation of national development plans and the allocation of annual budgets to all sectors of the 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 is then also responsible for building and operating the supply infrastructure.

In Cambodia, hydropower has been viewed as a (future) cheap and quick source of income, and rather ambitious development plans have been launched. However, in the light of a lack of personal and financial resources, even the most modest ones are few. The Ministry of Mines, Industry, and Energy 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 site of the first dams, in the short term there is only moderate interest. The reason for this is manifold. 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 prioritizing a number of dams outside the Mekong Basin. A number of these dams are in western Battambang Province bordering Thailand, and this could possibly turn into a joint venture with Thailand. The Kirirom project in southern Cambodia provides another example.11

In Laos, politically, maintaining good relations with neighbours and international actors is paramount. So is, however, developing hydropower potential, or so it is generally understood. The relation to the MRC is thus important (although the relation to the ADB might be even more important). As it seems, as a legal document, the MRC-Agreement with its obligations of information and consultation is taken seriously. Beyond that, and bearing in mind that the Ministry of Environment, for example, is increasingly active, the hydropower plans of Laos are so far hardly altered by the work of the MRC. The Ministry of Industry makes up the plans and the government takes the decisions. Many possible projects are competing for attention, and it appears that the dam projects suggested for the Sre Pok basin are of secondary importance for the moment, although they are certainly involved in the long-term plans.

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10 This was, for instance, the case for Thailand who saw its demand forecasts being grossly inaccurate when it was hit by the “Asia Crisis” in 1997 and onwards.
11 Interestingly, this project has for a long time been a part of the planning of the Mekong cooperation. However, now when particular demands are put on hydropower in the Mekong Basin, its quality as physically being outside the basin, thereby avoiding certain requirements, is instead stressed.
5.5 The Role of the MRC, MRCS, and NMCs

The role of the MRC and its Secretariat has already been touched upon. It was the clear ambition of the 1995 Agreement to create a politically forceful MRC with a competent Secretariat. It seems, however, that it has not been able to avoid its historical dilemma of wobbling between being an independent body and a body subordinated to national governments (IMC, 1989). The historical paradox might be that when such a body is successful with a project approach it is regarded as significant, but when that body uses a program approach it risks marginalizing itself. That is, planning for major mainstream interventions, the MRC cannot be ignored, but in drawing up policies, it obviously risks ending on the sideline as soon as the guidelines prove to be awkward for any part. It is here that the National Mekong Committees (NMCs) emerge as key institutions.

It is no novelty that the NMCs are regarded as key components—quite the contrary since this has been pointed out for several decades already. However, the “success” of the program approach increases considerably—or even requires—the need of well-functioning NMCs. This might pose a problem since:

In practice, the NMCs role are 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.

Pech et al., 1999: 1

This was recently recognized and a “self-evaluation” has been performed by all NMCs in order to clarify and strengthen their role. From this review emerges that the NMCs have:

• different and somewhat unclear positions;
• an “unusual” position in the respective state machinery and therefor limited room to maneuver;
• little or no role in decision-making—this rests with “traditional” line ministries;
• uneven capacity; and
• far from the role/capacity/status it should have in order to forcefully disseminate the policies outlined at the MRCS.

As long as the role of the NMCs only are to inform, their current position might be sufficient, but when/if their role includes to substantially influence national bodies to comply with the policies worked out on regional level by MRCS (and sometimes the donors), it becomes a totally different matter. Would they be expected to substantially go beyond that role in terms of public participation, it is our understanding that they would have to be further supported or even reformed. In our view the various countries are willing to follow the MRC Agreement, seen as a legal document, but it is less clear whether the “softer” policy dimensions of and in the Agreement—now being worked into programs—will be fully respected/appreciated. If it is the role of the NMCs to make sure that they are, the NMCs are likely to fail; if it is someone else’s role, we have failed to identify whose task it is. We must not forget that the content of the programs are regulatory, involving “uncomfortable” components, which many (most?) ministries and national plans would like to avoid or ignore, given the pressure to promote growth in the region.

6. Conclusions

It appears that the process of site selection has been driven by a triangle consisting of national governments, the ADB, and the consultants, leaving the MRC as a bystander working in a parallel process on, for instance, the development of the hydropower and environmental programs, data gathering, ultimate guardian of the Agreement, and in an ad hoc conflict resolution capacity. The actors in the “triangle” are all working from a pro-hydropower tradition, viewing increased access to energy on a national basis as a key for national economic growth, and growth as the key aspect of development.
A preferable way forward might be to take the new agenda of the MRC seriously, with its development of strict criteria for intervention, and highlighting of “participation,” “environment,” and “the region” as important dimensions. The long-term ambitions must be to establish an efficient “regime” where rules and regulation are commonly understood and accepted. It does not seem that the work on regional environmental governance has penetrated planning and practice so far, and it has a long way to go before it results in a regime that is both lasting and has an impact. Even more worrying, it appears that the National Mekong Committees are the ones that should be doing the “the job,” but they have relatively little influence and few resources to drive this rather radical change.

The roles being played by the various actors are elusive and complex. The ADB, for instance, has huge resources and constitutes an attractive partner for national governments. It might, however, be the case that the back and forth policy of the ADB in relation to the dam projects we have mentioned above is, more than anything else, evidence that the ADB is in the midst of an overall policy change. Be that as it may, either way it does affect the decision-making process. It is often acknowledged that hydropower projects are not viable in commercial terms and this is specifically the case if external factors are taken into account. However, the solution would be to encourage donors or banks to finance the very costly feasibility and pre-feasibility work, and then, with the heavy cost and wide range of uncertainties removed, the private sector might be commercially interested. This function is performed by the ADB and some bilateral donors.

The process of hydropower site selection, of which only a glimpse is shown above, is characterized by repeated, overlapping, and contradictory studies that have been carried out without proper communication and consultation. This might partly be due to oversight, but given the level of political sensitivity and the stakes involved, it might just as well constitute exercise of power, disguised in technical reports.

So far we are led to believe that:

- A regional approach to Mekong resource management is unavoidable. Both viewed as a biophysical system and as a socio-political one, interdependence is increasing and hence, “Regional governance”—in contrast to sovereignty—needs to be understood, acknowledged, and applied in order to improve resource management in the Lower Mekong River Basin.

- “Management failures” are quick to happen when there are small margins for making livelihood systems work. Regional governance is too complex to be managed ad hoc; it needs an institutional approach 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, inflated expectations on future economic gains.

- The MRC remains the only organization/institution with the states as members acting under a joint agreement and with a long-term ambition. In spite of several problems, there is a relatively high degree of positive interest—from the member states and donors alike—to establish some sort of environmental regime. In relation to massive hydropower plans, this constitutes a major paradox.

- The links between MRC and the National Mekong Committees, as well as between the National Mekong Committees and line ministries, become crucial. These links need to be considerably strengthened in order to not leave the MRC(S) hanging in the air.

- Environmental “governance”—although loose and as yet undefined—in the Lower Mekong Basin, may be driving hydropower projects out of the Basin: Kirirrom, Mae Prik, Son La, ect. Given the trends outlined above, the hydropower site selection process is becoming increasingly complex, something which might slow down the pace of construction of future hydropower projects. 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.”

The “dissonance” identified in the introduction remains, and has perhaps been brought into sharper focus. There are few openings for a major pro-hydropower agenda where environmental and livelihood
concerns are taken seriously. However, the purpose of Mekong Regional Environmental Governance is to deal with this conflict.

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