



The Changing Political Dynamics of Dam Building on the Mekong

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ABSTRACT: This paper explores political dynamics surrounding dam building in the Mekong river basin, prior to, and following, the World Commission on Dams (WCD). Since the 1950s, dam building in the Mekong river basin has been enmeshed in a complex and shifting geopolitical and eco-political landscape. The broad geopolitical sweep of US hegemony, Cold War, regional rapprochement and the rise of China has been superimposed on eco-political shifts between modernist belief in progress as mastery over nature, concerns of global and national environmental movements over dams and their impacts, and a galvanised Mekong environmentalism. During the first decade of the 21st century, mainstream dams on the Lower Mekong have returned to the agenda after having almost disappeared in favour of tributary projects. The growing strength and assertiveness of regional economic players has fundamentally altered the context of energy demand, planning and investment. New sources of finance have relocated the points of political leverage. Environment has been mustered in favour of, as well as in opposition to, dam construction in the contexts of climate-change discourses, protected-area linkage with dam projects, and an industry push for sustainability protocols and certification. Despite the Mekong being one of its focal basins, WCD has not played a prominent role in this transformed arena, yet many of the social and environmental concerns, stakeholder-based processes and safeguard-oriented approaches to hydropower planning that WCD brought to the fore have persisted in the wider ethos of politics around dams in the region.

KEYWORDS: Dams, Mekong, WCD, geopolitics, eco-politics

INTRODUCTION

The Mekong river basin was one of the river systems reviewed by the WCD (WCD, 2000). The WCD case study dam in the Mekong basin that received in-depth analysis, Thailand's Pak Mun dam, became one of the Commission's more controversial cases. This is hardly surprising, as Pak Mun is located in the country with the region's most active and acrimonious debate over dams, and is one of the Mekong's three most controversial completed projects, along with Yali Falls in Vietnam and Nam Theun 2 in Laos.¹ The case was particularly controversial because the WCD case study concluded unequivocally that the project had failed to live up to its developmental promises on virtually all counts. This provoked a response from the World Bank, which had part-funded the dam and which was also one of the key WCD stakeholders (World Bank, 2000).

What is more surprising is that the Mekong featured so prominently in the WCD process and outcomes, given that compared with most river systems around the world, the Mekong itself continues to flow unchecked along the entire lower half of the river. Even in the upper Lancang Jiang section, it was only in 1994 – a few years prior to WCD – that the first dam was completed on the mainstream in China. Further, WCD has figured relatively little in explicit decision-making and debate over dams in the Mekong. It is fair to say, then, that the Mekong was more prominent in WCD than WCD has been in the Mekong since completion of its report.

¹ Laos was renamed Lao PDR in 1975.

This paper reviews changes in the landscape of dam building in the Mekong during the decade since WCD presented its report (WCD, 2000). The review does not seek to determine the extent to which WCD recommendations have been adopted in the Mekong, as this has been considered elsewhere (IUCN, 2006). The policy process in such a complex and dynamic transnational arena, and on such a politicised issue, is not a linear pathway of study, report, recommendation and adoption. Rather, the influence of WCD is more tangential, diffuse and incremental, which is not to suggest that it has been inconsequential. With this in mind, the following discussion seeks to address a slippery question with regard to WCD in the Mekong: to what extent has the dramatically changing landscape of dam building in the post-WCD period been consistent with the Commission's findings, processes and criteria? The question is a slippery one, because none of the main institutional players subscribes to the WCD report as a regulatory device or even as a guiding document, in contrast to a number of civil society organisations. Yet, plans for dam building in the Mekong have been shaped over a long period of time by the prevailing ideological milieu. One way or another, WCD contributed to that milieu following the publication of *Dams and Development*.

To put the contemporary discussion in context, the paper provides a historical review of the geopolitical and eco-political currents that have shaped plans for Mekong dams over more than half a century. **The role of major institutions has not only reflected but also contributed to the zeitgeist around the notion of dams as an appropriate route to development.** An intricate interplay between geopolitics and eco-politics defines the shifting thinking over several decades. A more detailed account of changes in thinking around Mekong dams in the post-WCD decade reveals continuing debate over mainstream dams, at a time when tributary dam construction has accelerated rapidly. The geopolitical, eco-political and financial milieu of the regionalised growth economy shapes thinking on dams in some surprising new ways. WCD has largely been transcended by a combination of new circumstances and new stakeholder processes that render the exercise redundant at one level, but at another may represent its greatest incremental achievement in the form of a legacy of a more deliberative approach to dam building and a greater inclusiveness in decision-making.

A BRIEF HISTORY: THE GEOPOLITICS AND ECOPOLITICS OF MEKONG DAMS

Over the past half century, ideas and plans for dams in the Mekong river basin have ebbed and flowed with broader events and ideologies. In particular, the region's shifting, and often fractured, geopolitical landscape has both been a source of motivation for, and a constraint on, plans for large-scale hydropower development. Dominant thinking on the developmental and environmental issues associated with dams has also been enmeshed in a rapidly evolving eco-political arena.

In 1957, the Mekong Committee was established with the auspices of the United Nations but under the de facto hegemony of the United States early during the Cold War period and including the four lower Mekong countries of Cambodia, Laos, South Vietnam and Thailand as members (Jacobs, 1998). Most of the work of the Committee until 1975 was geared to planning a cascade of large dams on the mainstream that would impound the Mekong river into a stepped series of lakes from northern Laos to the head of the delta in central Cambodia. These plans were part of a development-based geopolitical project to pre-empt communism by building prosperity and enhancing the influence of the United States and its allies. The plans coincided with the period of high modernism during which faith in progress through large-scale infrastructure projects was at its peak.

In the event, none of the mainstream projects materialised during this early period. The main obstacle to fulfilling the dreams of the engineers and development planners was not technical but rather political. The conflict around the Second Indochina War precluded movement of plans beyond the drawing board. In 1975, Cambodia's withdrawal from the framework of the Mekong Committee further put on hold any large-scale development on the Mekong river itself. The only hydropower project that materialised within the framework of the Mekong Committee was the Nam Ngum dam in Laos, which was completed in 1971 with the support of 10 countries. The project was international less

in terms of its physical configuration than in its role of supplying power to neighbouring Thailand. During this period the only other dams built in the Mekong river basin were medium-scale hydropower and irrigation structures in north-eastern Thailand, notably the projects named after the three princesses (Ubonrat, Sirinthorn and Chulabhorn) and the Lam Pao scheme.

By the time of regional rapprochement between non-communist Thailand and its communist neighbours in the aftermath of the Cold War, demand for natural resources including energy was growing rapidly. Thailand started to look to its neighbours for sources of electricity, while Laos sought to enhance its income from sale of natural resources in the region. By the late 1980s the rejuvenation of the Mekong cooperation framework was a key priority, and leadership of the Bangkok-based Mekong Secretariat called for accelerated attention to revive plans for the larger Mekong mainstream dams including an only partly scaled-down version of the giant Pa Mong project just upstream of Vientiane, capital of the Lao PDR. The proposed crest heights of the cascade were later reduced somewhat to put forward the scheme as a series of "run of river" projects (Hill and Hill, 1994).

However, by the early 1990s Mekong dam proposals were set within a very different eco-political milieu. At a global level concern over the social and environmental impacts of mega-projects including large dams had received increasing attention through the 1980s (Goldsmith and Hildyard, 1984). In Thailand the environmental movement had been greatly bolstered by successful opposition to the World Bank-supported Nam Choan dam, which was shelved in 1988 (Hirsch 1988), and the achievement of a logging ban in early 1989 in response to environmentalist outrage at the loss of life from floods associated with deforestation in southern Thailand. Thailand's apparent intention to expand its environmentally destructive natural resource exploitation across its national borders provoked an environmentalist response in the form of attention to the revived designs of the Mekong Committee on the river and its tributaries (*Watershed*, various issues 1995-2007).

The early 1990s saw the evolution of the Mekong Committee as a framework for cooperation into the Mekong River Commission (MRC), in the immediate aftermath of the Rio Summit. MRC was created in 1995 when Cambodia, Lao PDR, Thailand and Vietnam signed the *Agreement on Cooperation for the Sustainable Development of the Mekong River Basin*. The emphasis on sustainable development involved a deflected emphasis on dams in favour of a more comprehensive and integrated approach to river basin development and management. Nevertheless, the overlap of role and personnel between the old and new institutions meant that dams were still central to the thinking of many associated with the MRC. Many non-governmental organisations (NGOs) retained a suspicion that the organisation was simply "old wine in a new bottle" (Hirsch, 2006), seeing little change in organisational ethos. The early leadership of MRC did little to allay these doubts.

BEYOND WCD: DAMS IN THE MEKONG 2000-2010

At the time of WCD (1998-2000), the enthusiastic revival of the dam-building agenda had been dampened for a number of reasons. The prevailing consensus at the MRC, among that organisation's donors, was that leadership in the form of a Scandinavian Chief Executive Officer (CEO) was widely seen as balancing developmental imperatives with environmental concerns (Hirsch, 2008), and more widely seen was that mainstream dams on the lower Mekong were simply too destructive to contemplate. The financial crisis after 1997 had slowed the growth of all countries in the region, and the country where the crisis had started and which had been affected most – Thailand – was also the one whose rapid growth in energy demand had been driving the push for tributary dams in Lao PDR to supply imported electricity. There were also emerging problems with those dams that had been funded by public institutions, notably the Asian Development Bank (ADB).

Tributary dams

In the decade prior to publication of the WCD report in 2000, several hydropower dams had been built on lower mainstream tributaries (Hirsch, 1996). These included Pak Mun (completed in 1994) and Yali Falls (1996) in Thailand and Vietnam, respectively, **both of which proved highly controversial over an extended post-completion period as their impacts were felt over a wider area and among more diverse groups of people than had been predicted in pre-construction assessments.** The tributary dams also included four dams in Lao PDR, each of which received **significant financial backing from the ADB.** There was controversy over these dams too, but of these only the Theun-Hinboun dam achieved significant international attention. The experience related to these dams helped set the scene for the more intricate post-WCD assessments, so they will be described in turn.

Pak Mun dam was completed in 1994, after construction with partial financial assistance from the World Bank. The controversy over Pak Mun has been documented extensively (e.g. Missingham, 2003; Foran and Manorum, 2009). The dam was the last significant hydropower project completed in Thailand before the large-dam-building era in that country effectively came to an end. In part, the shift from exploiting energy from dams within Thailand's own borders to securing power from tributaries in neighbouring countries has been a product of the best sites having already been developed, but just as significant have been the eco-political limits to further dam development after the political fallout from opposition and expanded compensation payouts that Pak Mun epitomised. The controversy around Pak Mun was heightened as it became one of the focal case study dams for WCD. The Thailand Development Resource Institute (TDRI), a widely respected independent policy research agency, was commissioned to assess the dam's development effectiveness against the claims made for it in the decision-making process that led to its approval. It should be noted that Pak Mun had been approved by the Chatchai Choonhavan government, some of whose advisers (including Chatchai's outspoken son Kraisaak) had been vocal in opposition to the Nam Choan dam, so the Electricity Generating Authority of Thailand had made the case for Pak Mun particularly forcefully. TDRI came out with a scathing assessment (TDRI, 2000), whose main findings are summarised in Table 1 below. The WCD findings have been referred to by those who have continued to claim compensation for lost fisheries income and other impacts on livelihood, and by those who pressed for an opening of the dam gates to allow fish passage, but the WCD studies were superseded by further studies by the Electricity Generating Authority of Thailand (EGAT), affected villagers in collaboration with the Thai Baan project, and Ubon Ratchathani University during the Thaksin government early in the post-WCD period (Foran and Manorum, 2009). The decision to open the dam gates for four wet-season months of each year following these studies represented a significant departure, in that the operating regime of a dam had for the first time in the Mekong region been part-negotiated through a political process.

Table 1. Predicted and realised impacts of Pak Mun.

Promised/predicted	Realised
Cost \$135 million	Cost \$233 million
Mitigation \$11 million	Mitigation \$32 million
Dry season HEP: 136 Megawatts	Dry season HEP: 40 Megawatts
Economic Internal Rate of Return: 12%	Economic Internal Rate of Return: 5%
Irrigation: 29,500 hectares	Irrigation: none
Displaced families: 241 households	Displaced families: 1700 households
Reservoir fisheries: 100 kg/hectare/year	Reservoir fisheries: 10 kg/hectare/year
Natural fisheries: fish ladder first for a Mekong tributary dam	Natural fisheries: 169 of 245 species disappeared upstream of dam

Source: Adapted from TDRI, 2000.

Yali Falls dam in Vietnam was completed in 1996. The dam is located in the upper reaches of the Sesan river basin. The Sesan river flows westward into Cambodia, and **downstream impacts of the dam have affected indigenous minority communities in Ratanakiri and Stung Treng provinces during, and subsequent to, the period of construction** (Hirsch and Wyatt, 2004). Around the time of the WCD process the Yali Falls case came to a head, with severe impacts from sudden releases of water that caused widespread loss of life, livelihood, and livestock and other property in downstream indigenous communities, affecting some 55,000 people in the two north-eastern provinces of Cambodia, and it became a cause célèbre among regional and international NGOs. It marked for many failures of the governance regime under the 1995 Mekong Agreement to deal with transboundary impacts of river basin development. While no reference was made to WCD in the negotiation of grievances around Yali Falls, the engagement of the MRC, the Vietnam National Mekong Committee and other institutional players in several stakeholder-oriented forums was in keeping with the more inclusive and deliberative approach to dams and their impacts that marked the Commission's work. Nevertheless, Vietnam has proceeded unilaterally to build several more dams on the upper Sesan river and also on the westward flowing Srepok.

In Lao PDR, most of the significant tributary dams built during the 1990s were funded or part-funded by the ADB. These were the Xeset dam in southern Lao PDR, the Nam Song diversion project and the Nam Leuk dam in central Lao PDR which divert water into the existing Nam Ngum dam, and the Theun Hinboun dam which diverts water from the Theun river into the Nam Hai tributary of the Hinboun river. Of these, Theun Hinboun became a **major source of conflict and controversy** immediately prior to the commencement of WCD's work. The dam had been commissioned in April 1998 with much fanfare by the ADB President as an "ecologically friendly" project. Within two months, the International Rivers Network (IRN) had published a report of the dam's devastating impacts on fisheries, livestock, agriculture and other aspects of livelihood among downstream communities along the Nam Hinboun (Shoemaker, 1998). ADB countered by sending its own study mission to refute IRN's findings, including on the front of its report a photograph of the same fisherman who had been pictured and quoted by IRN and who now appeared to refute the earlier allegations. However, following subsequent studies it became apparent that much of the IRN concern was well-founded and ADB publicly admitted at an international meeting "to have dropped the ball" on this and some other cases (Warren, 2000; Hirsch, 2001). The significance of this case with respect to WCD is that it was perhaps the last instance of such crass and one-sided claims being made for a major dam in the region.

Also during the 1990s, debate over dams and deliberations over assessment procedures galvanised around controversy over the largest tributary dam of all, Nam Theun 2. Promoted by the World Bank and the Government of Lao PDR, Nam Theun 2 dam attracted an extraordinary set of proponents and opponents into a protracted debate that lasted more than a decade (e.g. Lawrence, 2009). The dam and the controversy around it have been extensively documented elsewhere. WCD came into the controversy mainly around the issue of whether Nam Theun 2 was 'WCD-compliant', with cases put on either side. Ultimately the World Bank gave the funding and requisite guarantees the green light in 2004, and the dam was completed in early 2010. The significance of WCD in the decision-making over Nam Theun 2 was tangential rather than instrumental, in that the dam was legitimised as much in terms of the painstaking process-oriented approach to assessment as in terms of the relative costs and benefits of the project itself. The significance of Nam Theun 2 for other tributary dams in Lao PDR was, according to its backers, that it would raise the bar on the standard of planning, assessment, implementation and operation of a hydropower project in that country. The Government of Lao PDR, in contrast, has said it would not go through such a protracted and onerous assessment process again in future.

Following the go-ahead for Nam Theun 2 a flood of tributary dam projects already on the drawing board in Lao PDR gained momentum. To some extent this may be seen as a result of the dam proponents' victory in this landmark case. However, a similar burgeoning of interest in tributary development in the central highlands of Vietnam on the Sesan and Srepok tributaries, and subsequently

in Cambodia on the same rivers as well as in the south-western part of the country, suggests that other factors are at play in a revived promotion of hydropower development in the Mekong river basin.

By 2010, more than 120 tributary and mainstream projects are projected, under construction or operating on lower Mekong tributaries, in addition to the 11 proposed for the Mekong mainstream (MRC, 2010). The great majority of these are in Lao PDR. Many have been identified for quite some time, but the availability of private project financing has brought many of them much closer to fruition than they were during the first post-rapprochement hydropower bonanza of the mid-1990s. Furthermore, the revival of the mainstream dam agenda, combined with the go-ahead for Nam Theun 2, has focused attention away from the multitude of smaller tributary dams.

Mainstream dams

To date the only dams on the Mekong mainstream are on the Lancang Jiang section of the river in China. The Manwan dam, the first of these, was completed in 1994. Dachaoshan, the second, was completed in 2002, and in 2006, the Jinghong dam was completed. Two more dams, the giant Xiaowan and Nuozhadu hydropower projects, are under construction, and three more large structures are planned on the mainstream, while Huaneng Lancang Hydro is working on more than 20 others on tributaries and upstream of the main cascade. This represents both an acceleration and an expansion of plans at the time of WCD (McCormack, 2001). All of these dams have been planned, assessed and built without consulting downstream countries. China is not a member of the MRC. However, China has increasingly been engaged as a dialogue partner with the MRC, and this has led to a limited but steadily growing degree of information-sharing between upstream and downstream countries. In particular, and in the context of both China and MRC refuting allegations that record low flows in the Mekong were caused by withholding of water in China's existing reservoirs, the MRC Summit held in Hua Hin in April 2010 resulted in a commitment by China to release dry-season flows to assist downstream countries anticipate low flows and to potentially assess the degree to which flows are affected by hydropower operations. Nevertheless, it is difficult to discern any impact of WCD in the processes by which the Lancang dams have gone ahead or information shared with downstream countries.

While the Lower Mekong mainstream dams had been the major point of interest of the earlier Mekong Committee from the 1950s to the 1970s, and were briefly revived during the early 1990s, by the late 1990s the prevailing opinion was that these were now off the agenda in favour of tributary dam development. There were many reasons for this change of emphasis, including the prevailing sentiment of most donors to the MRC and its CEO Joern Kristensen that the environmental damage of these projects was simply too great. At the same time, the bulk of funding for the Commission's work was going into the twin areas of environment and fisheries. The latter created a particular difficulty for those who would promote impoundment of the mainstream, because it established beyond doubt, that the Mekong river basin fishery was the world's largest, it is the second-most bio-diverse after the Amazon, and is the major source of animal protein for tens of millions of the basin's poorest people. Furthermore, a better understanding of the migratory nature of the fishery and of the role of seasonal hydrology showed that mainstream impoundment threatened to produce major impacts, notably by blocking migration of fish and by reducing the connectivity between the river and its flood plain. Meanwhile, the ample opportunities for tributary development indicated above meant that power supplies could be augmented manyfold by such projects.

In 2007-2008, mainstream dams reappeared on the agenda in a big way. A range of factors and events explain this extraordinarily rapid shift in the prevailing influence. Immediately prior to this MRC's Secretariat and its Council had seen a distinct shift toward more developmentally minded leaders, notably the CEO Olivier Cogels (Hirsch, 2008). At the same time, those purporting to represent national interests in some of the riparian countries expressed decreasing patience with external voices that put a brake on rapid development of hydropower. For example, Madame Khampeng Pholsena, MRC Council member for Lao PDR, has been adamant that these are decisions for the riparian countries alone to

take (Osborne, 2009). There were also several sets of external influences that militated in favour of a renewed mainstream dam push. These included the Mekong river's changed seasonal hydrology once the Lancang dams had been taken as a fait accompli. The increase in dry-season flows, in particular, altered the economics of mainstream dams to make them more attractive to corporate investors. The rise in the global price of oil also greatly enhanced the relative economic advantage of non-fossil fuel-based sources of electrical energy. Closely associated with this has been the concern over climate change and the premium put on non-fossil-fuel-based power supplies. **Meanwhile, hydrological modelling carried out for the World Bank's Mekong Water Resources Assistance Strategy appeared to suggest that there was scope for considerable hydropower expansion without unduly impacting on the hydrograph, a contention that has itself been the subject of considerable challenge and debate (Käkönen and Hirsch, 2009).** A further, seemingly perverse argument increasingly mustered in favour of mainstream dams is that the capture fisheries of the Mekong is in irreversible decline, so there is not much point in holding off on projects that may destroy them (Friend et al., 2009). This is despite the fact that there is little evidence that fisheries are declining in output, and it points to the need for careful interpretation of ways in which such decline is framed (Bush and Hirsch, 2005).

Among the 11 dams being considered for the Lower Mekong mainstream, the furthest advanced projects are the Xayabouri dam in north-central Lao PDR and the Don Sahong hydropower scheme in southern Lao PDR near the Cambodia border. The concession for the Don Sahong project was granted to the Malaysian company Mega First Corporation Berhad which proposes to dam the Hoo Sahong channel, one of several that drop over the 20 meter cataract known as the Khone Falls. This channel is the main migration route for fish traversing the falls as it is the only one whose gradient allows passage for most species, especially during the dry season (Baran and Ratner, 2007). Despite opposition by a large group of international scientists, and mainstream environmental and scientific organisations including WWF International and World Fish, the Government of Lao PDR has been pressing ahead with this project with little public discussion and strong reaction from Lao PDR leaders at any hint of interference from outside the country. Osborne (2009) notes the role of the influential Siphandone family, including the former President and his son, the governor of Champassak province, in promoting this project. This example thus suggests the limits of WCD influence or entrenchment when decision-making is not forced into the international arena by funding exigencies, and when overriding political interests drive decisions and constrain open discussion.

A further development with respect to mainstream dams has been Cambodia's buying in to the agenda. Two of the largest possible dams in the Lower Mekong basin are the Stung Treng and Sambor dams in Stung Treng and Kratie provinces, respectively. These two projects are without doubt the most potentially destructive in terms of the area flooded and the impact on fisheries (Osborne, 2009).

The MRC has responded to the revived Mekong mainstream dam building agenda in a number of different ways. One is by commissioning a strategic environmental assessment of mainstream dams in order to ascertain impacts and set the framework for decision-making. Another is to organise a series of stakeholder forums in order to bring together different interest groups including the hydropower sector, various branches of government, national and international NGOs, academics, media and other interested parties. MRC has also engaged directly with the private-sector developers to whom the preliminary concessions to these projects have been given to discuss guidelines for their assessment and implementation, in particular with regard to their impacts on fisheries. The role and responsibilities of MRC remain an open area of discussion (Lee and Scurrah, 2009).

A NEW GEOPOLITICAL, ECO-POLITICAL AND POLITICAL ECONOMY

As in the four decades prior to WCD, dam planning, assessment and building during the first decade of the 21st century is set within a specific and dynamic geopolitical and eco-political milieu. On top of this, changes in the financing of hydropower schemes in the region and more widely have fundamentally altered the political economy of dams in a number of ways. There is also an important interplay

between geopolitics, eco-politics and financing, which combines to produce a new political ecology of Mekong hydropower. WCD is at best vestigial in this new configuration.

Geopolitically, the outstanding development of the early 21st century dam-building landscape is the economic rise of China. Over and above the dams on the Lancang Jiang mainstream, Chinese companies such as Huaneng and Sino-Hydro have provided engineering expertise and investment capital for a number of Mekong tributary projects in Lao PDR and one non-Mekong tributary (Kamchay dam) in Cambodia. Chinese companies also hold the contracts for some of the mainstream dams on the northern section of the Mekong in Lao PDR. China's dam building activities are commercial, but it is also part of that country's rapidly growing political influence and developmental role through investment, aid and trade relationships with Lao PDR and Cambodia in particular. Chinese resource companies' push to secure access to natural resources in Africa and its resource-rich Southeast Asian neighbours can be seen as a global strategy with far-reaching implications; In addition, China's role in Southeast Asia is further enhanced by its proximity, the geopolitical importance of mainland Southeast Asian countries to China, and the history of relations between the Chinese state and its neighbouring countries to the south (Osborne, 2006). The fact that these corporate investors are state-owned, with politically well-connected leadership within China, links the commercial aspect of hydropower investment even more closely to China's geopolitical role.

China remains outside the formal political framework for cooperation on Mekong basin development, but it is an increasingly active observer in MRC meetings and processes. At the October 2009 Stakeholder Meeting in Chiang Rai run by MRC's Basin Development Plan programme, the Chinese delegation engaged in a sophisticated way with a political message well tuned to the concerns of downstream countries. One of the material aspects of the delegation's message was that the Mengsong dam, the lowest of the eight dams on the Lancang cascade, was to be sacrificed in order to allow fish passage up a significant tributary to compensate for the obstructed passage past Jinghong (and in future Ganlaba). In fact, within China, Mengsong has been off the agenda for some time, but the timing and occasion of this announcement demonstrate a political acumen reflecting awareness of the need to engage with wider stakeholder concerns. This was reinforced at the MRC Summit in Hua Hin in April 2010 with unprecedented release of data on dry-season flows on the Lancang river. This is, in an indirect way, one of the more traceable influences of the broadened process-oriented approach boosted by WCD.

Concomitant with the rise of China is a 'regional bilateralism' that takes decision-making on dams out of the realm of international financial institutions and puts it into the arena of cross-border investment from the three economically dynamic economies – China, Thailand and Vietnam – into the national spaces of the less-industrialised but resource-rich economies of Burma, Cambodia and Lao PDR. While the talk at summits of the Association of Southeast Asian Nations (ASEAN) and the Greater Mekong Subregion (GMS) is of regionalism, the geopolitics of investment is increasingly bilateral. From the point of view of regional governments, the reduced need to go through the hoops of safeguard policies of the multilateral lenders is experienced as a greater independence, but one that partly reverses the hitherto increasingly process-oriented post-WCD approach to planning. Ironically, this has come at a time when MRC has become more process-oriented, and indeed it is in part out of frustration with the lengthy processes involved that regional governments and corporate players alike have tended to marginalise MRC at higher political levels (Hirsch and Jensen, 2006).

Just as the geopolitical context of dam building has continued to evolve rapidly, with implications for planning, decision-making and implementation of dam projects, so the eco-political ground has also shifted. At one level, the coalition of non-governmental organisations (NGOs) expressing concern over dams has continued to expand its network and to operate in newly created socio-political spaces in the region. The Thai-based regional NGOs Toward Ecological Recovery and Regional Alliance (TERRA) and Southeast Asia Rivers Network (SEARIN) have continued to partner both with international NGOs such as International Rivers and with local NGOs in individual Mekong countries, but mainly in Thailand and Cambodia. The Save the Mekong coalition, established specifically to target mainstream dams, has

brought several active Vietnamese NGOs into the regionalised civil society networks in an unprecedented way (www.savethemekong.org). In Cambodia, the impact of the Sesan dams in Vietnam, and more recently the accelerated dam-building programme in Cambodia, has moved action beyond the 3SPN (Sesan, Srepok, Sekong Protection Network) network focused largely on the north-eastern section of the country to national forums including NGO Forum and the Rivers Coalition Cambodia. Inside Vietnam, university-based researchers and several small NGOs staffed mainly by young scientists have become increasingly vocal over the environmental risks posed by large dams, in response to Vietnam's enormous acceleration of its hydropower programme throughout the country. In China, the suspension of the Nu Jiang (upper Salween) dams reflects an unprecedented influence of environmental concerns, and university-based environmental groups have a degree of space to express concern over dams. In Lao PDR, the absence of local NGOs, despite a recent provision for establishment of non-profit associations, means that most of the environmental concerns over that country's hydropower expansion are expressed in association with international NGOs or in a muted way by affected communities or within some sections of government.

One of the significant developments in eco-politics around dams is the employment of environmental arguments in favour of hydropower. The biggest single boost has come with attention to climatic change and the need to seek alternatives to fossil fuels, particularly in a region with rapidly rising energy demand. There is an ongoing debate over the greenhouse gas impacts of hydropower (Fearnside, 1995), but statements in support of hydropower in the Mekong increasingly make use of the climatic change argument and the need to avoid further fossil-fuel commitment. The spectre of nuclear power as the only large-scale alternative is also put forward, particularly in Thailand and Vietnam. Other environmental arguments are mustered in support of dams by their proponents, including the packaging of revenue streams into environmental management programmes. In the case of Nam Theun 2, US\$1,000,000/ yr (approximately 0.4% of projected gross revenue) is allocated for managing the Nakai-Nam Theun National Biodiversity Conservation area in the upper catchment.

The shift from public to private financing of dams and the emergence of hybrid public-private partnerships have far-reaching implications for planning and assessment processes in the post-WCD era (Middleton et al., 2009). The shift of governmental role from owner and operator of dams to regulator means that the safeguard processes instigated in part as a result of the same concerns that triggered WCD are no longer leveraged by NGOs through lending institutions in the same way. This has left many NGOs in a quandary, or to continue to target the same institutions as earlier but finding that those institutions are no longer in a position to determine whether or not a dam gets built, and if it does, what the safeguard criteria should be. On the other hand, some of the new private actors are keen to be seen, at least, to be doing the right thing by affected people and the environment. Despite weak regulatory controls and subservience of environmental ministries to national development priorities, host governments also seek to maintain at least the image of concern for sustainability and equity in their approach to hydropower development. Meanwhile, the reliance of private developers on international finance gives a point of leverage to NGOs such as IRN in holding banks to the Equator Principles that set rules for ethical investment and lending by the private sector. These have been applied by IRN in its campaign against the Theun-Hinboun Expansion Project in Lao PDR, which draws funding from several private international financial institutions including the ANZ Bank.

In fact, the multilateral and bilateral agencies are not as far out of the picture as sometimes perceived. Lending has tended to go to the ancillary infrastructure that facilitates – and effectively subsidises – hydropower development. In particular, World Bank and ADB loans for high voltage power lines and planning of a Mekong-wide regional electricity grid keep these institutions firmly within the arena. Basin-planning exercises such as the ADB's Sesan-Srepok-Sekong (3S) programme also give an impetus to hydropower in the more palatable form of stakeholder-based multi-purpose river basin development. Technical assistance from Scandinavian donors to power planning in Vietnam and Lao PDR also provides implicit subsidies to the sector.

The political economy of private-sector investment in hydropower is sometimes quite specific in linking political and economic influence and interests. A case in point is the Don Sahong project in Lao PDR, whose political backers include the powerful Siphandone family. The ability to engage in public discussion is constrained by such connections. Similarly, open discourse within government ministries in Cambodia has been constrained by that country's leadership's close relationship with China and its desire to see large-scale projects go ahead. In such circumstances, the earlier moves toward adopting WCD-style criteria and deliberative processes are difficult to pursue.

Nevertheless, recent initiatives have continued to push the process-oriented agenda forward. Two initiatives in particular may test the continuing relevance of WCD as an advance on prior practice in the Mekong. The first of these is a Strategic Environmental Assessment (SEA) being carried out by MRC. This assessment has been driven by a concern that private-sector plans and actions have moved rapidly ahead of public planning processes, particularly with regard to mainstream dams. The SEA seeks to engage private-sector players and establish a set of regulatory criteria with which regional governments can work in making decisions over approvals, and over design requirements. The latter is most significant, and perhaps most controversial, in the area of fish passes.

The second key initiative, and the one most akin to WCD in its approach, is the Hydropower Sustainability Assessment Forum (HSAF). This joint initiative of the International Hydropower Program, WWF and a range of other organisations and agencies effectively seeks to provide a basis for ensuring that dams are designed by their proponents with proper environmental and social safeguards in place. A likely direction of HSAF in producing a Hydropower Sustainability Assessment Protocol (HSAP) is to establish certification processes. This becomes particularly controversial if it then extends into the realm of Clean Development Mechanism eligibility, since HSAP thereby not only provides discursive legitimisation and an imprimatur for industry-driven regulatory approvals but also generates subsidies to hydropower while maintaining fossil-fuel burning elsewhere based on the carbon credits bought with such subsidies. Although HSAF is a global process, which like WCD involves a panel drawn from across a wide range of industries, NGOs and governmental stakeholders, the Mekong is one of its key testing grounds.

Despite the apparent similarities, HSAF differs from WCD in some key respects (Foran, 2009). The impetus for HSAF came from the corporate and non-governmental sector, the latter from WWF in particular, an agency that has been involved in a range of certification exercises in other sectors including forestry. WCD, on the other hand, had a heavier international public-sector impetus behind it in the form of the World Bank, United Nations Environment Programme and other intergovernmental agencies. To some extent, this reflects the shift in the governance of controversial natural resource development projects a decade on away from state and intergovernmental actors toward private-sector and civil-society organisations. Another key difference is that the HSAF is structured principally around the project cycle, providing guidelines and assessment criteria for planning, assessment, implementation and operational phases. WCD was much more focused on the assessment phase. HSAF also supports an amalgamated scoring process, potentially masking rights infringements, in contrast to the rights-oriented approach of WCD. Finally, and most controversially, HSAF appears to have weaker criteria than WCD on free prior and informed consent (FPIC) of affected people. The industry rationale for this is that FPIC would give a veto right to small numbers of people who could obstruct public interest.

CONCLUSION: WCD AND MEKONG DAMS IN PERSPECTIVE

Despite the problematic past of dams globally and in the Mekong, the decade since WCD has seen an acceleration of the dam-building agenda with implications for the mainstream and tributaries alike. As during the four decades of planning for dams prior to WCD, there have been ebbs and flows. However, in 2010, it truly appears that the status of the Mekong river and its tributaries as relatively free-flowing may be coming to an end. For those who looked to WCD to influence decision-makers away from

hydropower, this is a great disappointment. In the Mekong it is perhaps particularly so, because the Pak Mun case study showed such startling disparities between promises and outcomes. The best that WCD might have achieved, then, is to have helped buy time through the establishment of deliberative processes such as those employed in the case of Nam Theun 2.

It is in deliberative processes that the legacy of WCD is most readily traced. WCD emphasised negotiated outcomes involving all stakeholders, within its rights and risks framework. These deliberative principles continue to be employed in increasingly common stakeholder forums by MRC and other agencies, consultative procedures such as those of HSAF and 'public hearings', and so on. The extent to which such processes influence outcomes, other than by delaying them somewhat, is unclear. What is clearer is that governments in the region have become impatient, and have leapt at opportunities to short-circuit procedural rules that are deemed to have been imposed by interfering outsiders.

Another aspect of the WCD legacy is greater inclusiveness in decision-making. Nevertheless, the rights and risks approach of WCD has only partially taken root, in the sense that while risks of dams to affected people and not just to investors are now widely acknowledged, the rights of those affected are still far from being the starting point in project planning. Affected people's lives and livelihoods are planned for them by a wider group of resettlement experts, agronomists and others, but more in the spirit of beneficence than of empowerment through deferral to the rights of people to decide their own futures.

In reviewing the shifting eco-political, geopolitical and political economic milieu during the pre- and post-WCD decades, then, the WCD, its activities and its report can at best be seen as a product of its times rather than as a catalyst of change. At an incremental level, the mobilisation of awareness and the documentation of impacts by WCD no doubt raised the profile of dams and established linkages and dialogue between actors who previously had little basis for communication. In 2010, however, WCD is a rather distant memory in the Mekong.

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