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China and the Politics of Hydropower Development: governing water and contesting responsibilities in the Mekong River Basin

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Abstract The Mekong River Basin has reemerged in recent years as a region of geostrategic significance. Extensive hydropower development, coupled with the effects of climate variability and increased resource competition, has generated a host of concerns regarding the future of the important Lancang-Mekong River. Given the contentious allocation of stakeholder responsibilities vis-à-vis the management of the river's shared water resources, the implications of such discord for human and ecological security in the region are wide-ranging. It is nevertheless within an increasingly contested public sphere that affected communities, together with local and international NGOs, have come to play a greater role in holding the Chinese government to account for the consequences of its hydro-development schemes, in particular the Lancang dam cascade in Yunnan Province.

Introduction

Fascination with the Mekong River has been a long-standing one, spanning more than six decades. Described, at various times, as being a "River of Life", "River of Peace", and even a "River of Terror and Hope",¹ the Mekong has borne witness to the rise and fall of ancient kingdoms and civilisations, and was also the setting for the protracted and violent Indochina Wars whose conclusion, it was then hoped, would beckon in a new era of peace and common prosperity for the region. Yet despite more than forty years of relative stability, the Mekong has again become the focus of renewed attention and concern.

China is currently in the midst of a modernization drive, with national development featuring prominently in its policy agenda. Prioritizing energy and resource security as foremost concerns, hydropower is considered as an important means to meet the country's rising energy demands, as well as constituting a supposedly "cleaner" and more affordable alternative compared to fossil fuels. This has resulted in China's rapid hydropower expansion both at home and abroad, with Chinese dam-building spreading across the developing world. Among the most controversial of China's dam projects is its cascade of (originally) eight hydropower dams² on the upper stretches of the Lancang-Mekong River located in the

¹ "Mekong: River of Terror and Hope," National Geographic 134:6 (December 1968).

² Following the cancellation of the Mengsong dam, the cascade's current plan involves seven known dams. More recent accounts, however, reveal at least another 17 dams on the Lancang's mainstream between Gongguoqiao and the borders of Tibet and Yunnan, including the Lidi and Miaowei, which have either been approved or are in various stages of planning by the Chinese government. Yet the exact names, location, and specifications of these dams remain in flux due to limited information. This falls in line with a plan released by

southwestern province of Yunnan. In view of the potentially devastating consequences of this cascade on the river's ecology, the scheme has attracted both apprehension and disapprobation from downstream communities, as well as from certain quarters of mainland Southeast Asian governments. How this issue is addressed will constitute an important litmus test not just for China's regional diplomacy, but equally for existing water governance arrangements within the region.

Developing the Mekong's water resources invariably raises a range of regional challenges to do with issues of equitable use and distribution, and transnational environmental harm. This is not to mention other socio-economic externalities, including popular discontent and social instability from forced resettlement and displacement. However, rather than appropriating culpability solely to China for the lack of transparency and accountability in its dam-building activities, this article argues that part of the problem lies equally with the weakness of prevailing sentiments of shared responsibility at the interstate level and the limitations of governing arrangements in place that have so far failed to effectively incorporate inclusive, multi-stakeholder mechanisms. It also deserves note that China's policy towards hydropower development in the Mekong River Basin has not evolved in isolation from traditional attitudes and approaches to water governance and development, as seen at both the regional and international levels, which are skewed towards exploiting natural resources for economic development. In this light, although the forces of "development" currently threatening the Mekong are localised and regional in scale, they are nonetheless derivative of global issues to do with the governance of transboundary rivers.

That said, it is largely in response to the inadequacies of extant institutional mechanisms that an evolving regional public sphere has come to center on the issue of the Mekong's governance. Within this contested space, affected communities in collaboration with local and international NGOs are beginning to play a greater role in holding the Chinese government to account for the consequences of its hydro-development schemes. In renegotiating China's rights and responsibilities as an upstream power, these non-state actors are challenging traditional development paradigms to advance a discourse of ecological sustainability that prioritizes local well-being and the protection of the Lancang-Mekong River's invaluable resources.

Governing the Lancang-Mekong as a Shared Resource: the dam debate

Shared rivers are typified by both conflict and cooperation. With China's position as an "upstream superpower",³ the Lancang-Mekong River is proving to be of geostrategic significance, serving as a potential fault line for Sino-Southeast Asian relations. The 795,000 km² Mekong Basin encompasses five Southeast Asian states – Cambodia, Lao PDR, Myanmar, Thailand, and Vietnam – as well as China's southwestern province of Yunnan. Rising in Mount Tangula in China's Qinghai Province, its waters plunge through the high gorges of Yunnan, subsequently broadening in the "Golden Triangle" area to demarcate a

the Yunnan Provincial government in 1995, where there was originally to be a series of fourteen dams on the Lancang.

³ James E. Nickum, "The Upstream Superpower: China's International Rivers," in Olli Varis, Asit K. Biswas, and Cecilia Tortajada, eds, *Management of Transboundary Rivers and Lakes* (Berlin: Springer, 2008), pp. 227-244.

large portion of the Thai-Laotian border, before passing though Cambodia and finally emptying into the South China Sea through the delta in Vietnam. The Mekong basin is home to more than 70 million people, with their subsistence reliant on the river's natural ebbs and flows. The Mekong also boasts a concentration of biodiversity only second to that of the Amazon, with approximately 1,700 known fish species. The river also constitutes the region's "food bowl", with an estimated 80% of the protein consumed in Cambodia derived from the river's inland fisheries.⁴ Aside from serving as the world's largest freshwater fishery, the ecological importance of the Mekong is further reflected in its major watersheds like the Mekong Delta in Vietnam, which produces approximately 40% of the country's crop, and Cambodia's Tonle Sap, where the lake's seasonal "natural reverse flows" not only acts as a buffer against floods but is also responsible for nurturing various aquatic life and plant species in the surrounding wetlands.

The upper section of the river – the Lancang Jiang – constitutes one of China's longest river, with a drainage basin of 167,487 km² that accounts for nearly 2% of China's total land area. According to official Chinese estimates, the Lancang contributes around 13.5% of the Mekong's flow,⁵ supplying half of the sediment discharge flowing into the Mekong Delta. In Yunnan, the river runs for 1,240km, flowing through seven prefectures, with a drainage basin that makes up 23% of Yunnan's total land area. The Lancang watershed is populated by nearly 5 million people, while the fertile Lancang valley in Xishuangbanna Prefecture is inhabited by various ethnic groups – notably the Dai – and has 75% of its surface area covered by forests that contain more than 5000 plant and 400 animal species, and which also contribute to the regulation of hydrological flows to the Lower Mekong Basin.

The Lancang-Mekong is known for being one of the least developed river systems in the world today. Only a fraction of its total hydropower potential of 35,000 megawatts (MW) has so far been harnessed. This is changing, however, as the river's water resources are ascribed newfound economic value, to be tapped for the sake of national development and regional economic growth. But while many analysts attribute Chinese hydro-development on the Lancang to the State Council's 10th Five-Year Plan (2001-2005) of 'Opening Up the West' (*xibu da kaifa*), an infrastructure-development plan seeking to exploit the energy potential of Yunnan Province and Tibet, China's Lancang dam cascade actually has deeper historical roots. In fact, plans for large-scale development were proposed as early as the 1970s. In building this cascade, the Chinese central and provincial governments seek to exploit a 700-meter drop in elevation along the middle and lower sections of the Lancang. Upon completion, the dams are expected to produce a total of 15,600MW, which constitutes around 60% of the total expected output of the Three Gorges dam.⁶

But while plans have been in place since four decades earlier, awareness of the full scope and transboundary implications of China's Lancang cascade is fairly recent. It was not until the mid-1990s that the project was first brought to public attention. Until then, details of

⁴ Nathan Badenoch, *Transboundary Environmental Governance: Principles and Practice in Mainland Southeast Asia* (World Resources Institute, 2002), p. 3.

⁵ It deserves note that this number is debated, however, with some estimates placing the Lancang's contribution at approximately 16% to 20% of the lower Mekong's flow.

⁶ Timo Menniken, "China's Performance in International Resource Politics: Lessons from the Mekong," *Contemporary Southeast Asia* 29 (2007), p. 106.

the scheme remained largely limited, as the Chinese government did not widely publicize the scheme and did not seek any external financing or support for it. The first of the planned eight-dam cascade – the 1,500MW Manwan dam – became fully operational in 1995, having been under construction since 1986. The construction of the second dam - the Dachaoshan began soon after in 1996, and was completed in 2003 with an installed capacity of 1,350MW. This was followed by the 1,500MW-Jinghong dam, completed in 2008 and located near to the Thai border in the Golden Triangle area. The 292m-high Xiaowan dam, with a reservoir of around 15 billion cubic metres, exceeds all three preceding dams in size, having reportedly resulted in the submersion of a large swathe of land and the displacement of over 30,000 people, and proving to be of far greater concern to communities downstream.⁷ Equally large (and worrying) is the 261.5m-high Nuozhadu dam,⁸ which will have a storage capacity of more than 20 billion cubic metres of water. Together, the Xiaowan and Nuozhadu will have the cumulated power capacity of nearly 10,000MW and are believed to be capable of causing tangible effects on seasonal hydrological flows further downstream. Locals in Chiang Khong district, the closest major Southeast Asian town to Yunnan, have consistently claimed that rises in water levels were noticeable whenever the sluice gates of the Lancang dams were opened.⁹

Implications for regional security

China is, by no means, the only country seeking to harness the Mekong's hydropower. Southeast Asian governments, especially Laos, are as eager to exploit the river's natural endowments. Certainly, it is the presence of other actors and their varied interests that renders the Mekong case an inherently complex and politically sensitive one. At present, there is believed to be more than 80 hydropower projects in various stages of development planned for the Mekong and its tributaries, of which 11 have been proposed for the lower reaches of the Mekong mainstream, including the controversial Xayabouri and Nam Theun II dams in Laos.

There has yet to be an authoritative and globally-sanctioned regime to deal with the governance of transboundary rivers. One prominent attempt was the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses, which ultimately failed to acquire the required number of ratifying states by the set deadline in 2000. A comparable lack of 'thick' institutionalisation of operative water norms exists at the regional level in Southeast Asia, as evinced from the institutional history of the Mekong River's governance. When the Mekong Committee (1957-1975) was established under the auspices of the United Nations' Economic Commission for Asia and the Far East (ECAFE), the organization had lacked sufficient capacity to enforce cooperation among member-states. Regional instability up until the 1980s also translated into instability within the committee, as geostrategic

⁷ The last of the Xiaowan's six generators became operational in August 2010. Huaneng Hydrolancang, "Huaneng Xiaowan Shuidianzhan 6 tai jizu quanbu touchan" [Huaneng Xiaowan Hydropower Station – all 6 [power generating] units operational], September 6, 2010, <http://www.hnlcj.cn/shownews.asp?newsid=2069>, [accessed 7 October 2012].

[§] "Largest hydropower station on Mekong River starts operation," *China Daily*, September 7, 2012, http://www.chinadaily.com.cn/business/2012-09/07/content_15742514.htm>, [accessed 7 October 2012].

⁹ Geoffrey Gunn and Brian McCartan, "Chinese dams and the Great Mekong Floods of 2008," *Japan Focus*, August 31, 2008 http://www.japanfocus.org/articles/print_article/2865, [accessed 2 August 2010].

concerns impinged on how member-states approached prospective hydro-development policies and projects. Cambodia even withdrew its membership at one point, leading to the formation of the Interim Mekong Committee (1978-1992) that suffered from a significantly weakened mandate.

It would only be with the Mekong River Commission (MRC) established in 1995 that full membership was restored. The MRC inherited much from its predecessors, especially in terms of its mandate which focuses on the affairs of the downstream riparian states. This has imposed considerable constraints on its capacity to act, as it functions primarily as a "clearing house" for proposed hydro-projects, tasked with providing scientific knowledge on the river's hydrology and ecology. Operating mainly at the national and interstate levels, the MRC has yet to fully incorporate a participatory framework into its operational paradigm. This is a recurring issue seen in other regional mechanisms for managing natural resources. For example, while the Basic Framework of ASEAN-Mekong Basin Development Cooperation acknowledges the importance of sustainable development, it remains geared towards regional and national development imperatives, with ecological protection constituting less of a focal concern. Tellingly, at the Second GMS Environment Ministers' Meeting in 2008, clear emphasis was placed on 'Environment for Development'.

With collective action problems proving endemic to many water-sharing arrangements, what this points to are the power-based inequities underlying the access and utilisation of shared water resources. Often characterized as a "zero-sum" game, the imperatives of upper and lower riparian states tend to diverge as upstream development is seen as undertaken at the expense of those downstream. Yet, as upstream riparians like China will argue, they are merely exercising their right to develop natural resources within their territory. As one Chinese commentator explains, the Lancang Jiang is a "national asset"; to not exploit it for the benefit the Chinese people would be "unreasonable" and a "waste", since utilization of the river's water resources is China's "sovereign right".¹⁰ Lax supervision of environmental impact assessments, together with the "thin" institutionalisation of operative norms on water rights and state responsibilities for transboundary environmental harm, further means that the risk of states having to compensate neighbours for the consequences of "irresponsible" water use is low compared to the benefits to be gained. As such, there appears to be little incentive for state compliance.

A similar predicament arises with China's Lancang cascade. At the Public Forum on Sharing the Mekong Basin in 2010, an official Chinese representative attempted to assuage discontent over the Yunnan dams by asserting that the "[r]ational harnessing [of] the water resources of the Mekong River is in the interests of all countries in the Greater Mekong Sub-region", and that "[a]s a responsible upper-reach country, China will never do things that harm the interests of the lower-reach count[r]ies".¹¹ Yet the country's reticence in joining the MRC as a fully-fledged member suggests a different attitude. As the uppermost riparian with

¹⁰ Interview, Beijing, China (14 December 2010). Although this constitutes a more "extreme" view, China's reticence to share information on its dams and its unwillingness to become a full MRC member would seem to attest to the underlying sentiment expressed here.

¹¹ Yao Wen, "Information about the Severe Drought in Southwest China and the Hydropower Development in Lancang River," statement to the Public Forum on Sharing the Mekong Basin, Chulalongkorn University, Bangkok, Thailand, April 1, 2010 http://www.savethemekong.org/news_detail.php?nid=97, [accessed 10 June 2010].

the most hydropower potential and facing the least vulnerabilities, what benefits are there for China to join the MRC? Remaining as a "dialogue partner", ¹² China does not have to observe the obligatory principles stipulated in the 1995 Mekong Agreement such as prior consultation, reasonable and equitable use (Article 5), the maintenance of minimum monthly flows (Article 6), the prevention and cessation of harmful effects (Article 7), and state responsibility for damages (Article 8),¹³ and is not subject to direct scrutiny from the MRC and other member-states. Unsurprisingly, critics of Chinese dam-building frequently cite this as evidence of not only the MRC's own weaknesses, but also of China's unilateral decisionmaking when it comes to issues involving its national interests.¹⁴ Of course, without the full participation of a key state, this considerably limits the MRC's ability to implement an integrated water resources management (IWRM) approach to basin planning. It also means that the MRC is less capable of inducing Chinese cooperation. Despite an agreement in 2002 between China and the MRC to share hydrological information, the data-sets provided are of limited use for determining the full effects of Chinese dams on water levels since they represent data taken from only two of China's upstream monitoring stations and provide hydrological information only during the wet season. Nonetheless, deepening regional economic interdependence ensures, for the most part, that militarised conflict over the Mekong's resources remains unlikely, as the MRC and Southeast Asian governments are still reluctant to engage in outright confrontation with their northern neighbour.

The human and ecological security dimension

A major source of normative contestation against the Lancang cascade, however, stems from the ecological and human vulnerabilities of large-scale hydropower development. Despite dam proponents citing their potential benefits – for instance, helping to regulate the river's flow regime in times of drought, with China reportedly intending to put about 40% more water into the river during the dry season and reduce the monsoon flow by 17% as circumstances demand in the wet season¹⁵ – riparian communities and environmental NGOs have voiced much apprehension and discontent over their potentially perverse impacts on the local environment. These include upstream flooding of vast expanses of river valleys, villages and farmlands that are transformed into reservoirs, as well as reduced sediment loads and abnormal water levels, given fluctuations in volume and flow rates caused by the retention and release of water by the dams. These consequences, in turn, can cumulatively affect the river's morphology, together with its mineral and nutrient concentration, which are vital to the sustenance of the river's biodiversity and to the downstream ecology of such major watersheds as the Tonle Sap and Mekong Delta.

As a downstream country with no direct access to the Mekong mainstream's hydropower potential, Vietnam arguably stands to lose considerably from upstream

¹² Myanmar is the only other MRC dialogue partner.

¹³ MRC, "Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin," 5 April 1995, pp. 3-5.

¹⁴ That China has steadfastly refused to ratify the UN Watercourses Convention works only to fuel further doubts.

¹⁵ "Lancang Jiang Nuozhadu Shuidianzhan jiang ke jianhuan xiayou guojia honglao zaihai" [Lancang River Nuozhadu Hydropower Station can mitigate downstream flood disasters], *Hong Wang* [Red Net], September 7, 2012, http://ny.rednet.cn/c/2012/09/07/2742483.htm, [accessed 7 October 2012].

development that can harm the fragile ecology of the delta and, by extension, threaten the country's food security. The result could be disastrous, as social vulnerabilities are exacerbated by natural hazards, namely extreme climate conditions and increasing salt-water intrusion. In a (rather rare) display of disapprobation against Chinese dams, Vietnamese President Truong Tan Sang took note at the APEC summit in September 2012 of how "[d]am construction and stream adjustments by *some countries* in upstream rivers" was a "growing concern for many countries and implicitly impinge on relations between relevant countries."¹⁶ Similarly, with 95% of its territory in the Mekong Basin, along with a reliance on the Mekong's waters for irrigation, fisheries and hydropower, Laos also stands to lose considerably. Should fish stocks decline as a result of unnatural water fluctuations and turbidity, for example, this would lead already-impoverished communities to become even more so.

Somewhat ironically, as Chinese policy-makers tell downstream communities that upstream dams can help regulate the Mekong's hydrology, they have also argued that these dams will have little effect on water levels, asserting that the Lancang contributes only 13.5% to the river's total discharge. Controversy over Chinese dam-building on the Lancang's mainstream was, however, triggered initially by the advent of unusually low water levels in 1993, and then again 1997, when navigation in the Golden Triangle area was seriously impeded. Downstream, China's neighbours voiced their discontent under the belief that the Manwan dam, which had then been filling up its reservoir, was the culprit. In response, China had to release water from its dam to raise water levels. Problems over fluctuations in the Mekong River's hydrology emerged again during the dry season of 2004, when unusual flow patterns were observed in the Lower Mekong Basin and water levels were far lower than normal. Downstream agricultural and fishing industries suffered considerable economic losses, whilst cargo vessels could be seen stranded mid-river. Given how another of its large dams - the Dachaoshan - had just been completed a year earlier, China was again believed to be culpable, albeit not for the drought per se but for exacerbating it. Crucially, the situation was so critical that the MRC actually called an emergency meeting, culminating in the submission of a formal letter to China requesting more information on its dam operations.

More recently, the 2008 Great Mekong floods once again spotlighted Chinese dams as to blame for the severity of the flooding. The deluge had partially inundated Vientiane and Luang Prabang, having also affected several of Thailand's northern provinces, especially Chiang Khong and Chiang Saen districts in Chiang Rai Province. Locals believed that China's upstream dams had swelled the run-off from the sudden downpours, and that its river navigation development projects, which involved the blasting and dredging of the Mekong's river rapids, were responsible for rising water levels. The Chinese denied such allegations. Of equal note is how the MRC, along with Thai and Lao government officials, also contended that Chinese dams were not at fault, arguing that the storage areas of then operating dams had been too small to affect the Mekong's flood hydrology.¹⁷

¹⁶ "China's dams a threat to the Mekong," *United Press International*, October 1, 2012, <<u>http://www.upi.com/Business_News/Energy-Resources/2012/10/01/Chinas-dams-a-threat-to-the-Mekong/UPI-43291349114632/></u>, [accessed 7 September 2012].

¹⁷ Gunn and McCartan, "Chinese dams and the Great Mekong Floods."

To be fair, the majority of studies on the impacts of the Lancang dams seem to suggest the lack of any major, systematic alterations to water levels¹⁸ that could have led to such dramatic occurrences as the 2008 floods. Nevertheless, heated debates on this issue have persisted, as a degree of scientific uncertainty still needs to be taken into account. Given how China has yet to complete construction of all its planned dams on the Lancang's mainstream, and considering how the complex ecological ramifications of mainstream dams may take time to culminate and manifest, to assess the full effects of the cascade proves invariably problematic. It remains the case that though water levels might not be directly or significantly affected by the cascade, the river's fisheries, for example, could still be through unnatural changes to sediment flows and water quality downstream.

Indeed, for rural communities dependent on the Mekong as a "source of life", and who have witnessed first-hand river bank erosion and declining fish stocks, drawing a causal connection between these emerging signs of ecological degradation and Chinese dams is inevitable. Fish catch has reportedly decreased by half in certain areas of Cambodia and Thailand, supposedly as a result of the lower water temperatures caused by water released from upstream reservoirs, and sudden hydrological fluctuations due to the opening and closing of sluice gates. Concerns have likewise been raised over the impact of Chinese dams on sedimentation. With half of the Mekong's annual sedimentation load purportedly originating from the Lancang watershed, there is a prevalent fear that mainstream dams will trap sediment, leading to bank erosion and increased saline intrusion downstream. At the same time, by trapping sediment, this could also reduce the cost-effectiveness of the dams. The Manwan is frequently cited as a case-in-point, given how after three years of operation, the reservoir's active water storage capacity decreased to levels expected only 15 years later.

In this way, what the 1997 Stockholm Water Symposium observed more than a decade ago still proves highly pertinent here: "The overriding issue – how to reconcile upstream socio-economic development with downstream protection of ecological services – remains unsolved."¹⁹ But as the ensuing section demonstrates, the problem also goes beyond upstream-downstream relations. Given the embeddeness of developmentalist thinking within the region it becomes, more broadly, a matter of balancing national development goals with local conservation of finite environmental resources for the sake of biodiversity and community livelihoods.

Bounding the Mekong for unbounded development?

Aside from being the favoured method for managing rivers and harnessing their power, hydroelectric dams are often treated as symbols of national pride, as well as modern representations of human ingenuity and progress. This is true for China, whose history is

¹⁸ See He daming, Feng Yan, Gan Shu, Darrin Magee, and You Weihong, "Transboundary hydrological effects of hydropower dam construction on the Lancang River," *Chinese Science Bulletin* 51 (2005), pp. 16-24; Lu Xi Xi, Wang Jian-Jun and Carl Grundy-Warr, "Are the Chinese dams to be blamed for the lower water levels in the Lower Mekong?," in eds. Matti Kummu, Marko Keskinen and Olli Varis, *Modern Myths of the Mekong – A Critical Review of Water and Development Concepts, Principles and Policies* (Helsinki: Helsinki University of Technology, 2008), pp. 39-51.

¹⁹ Quoted in Ken Conca, *Governing Water: Contentious Transnational Politics and Global Institution Building* (Cambridge, Mass.: MIT Press, 2006), p. 121.

replete with anecdotes of how feats of civil engineering have managed to transform the country's landscape and waterscape. Official fanfare surrounding the Three Gorges dam, or the Xiaowan's "glorification" as a "reservoir for progress"²⁰ that surpasses even the U.S.'s Hoover dam in size, serve as apt illustrations of this. Certainly, it comes as no surprise that half of the world's 40,000 large dams are located in China, making it the world's biggest producer of hydropower today – in essence, a "hydro-superpower".²¹

Yet, this modern development-led paradigm is pervasive not just in China but resonates widely in Southeast Asia as well, having become embedded in the socio-economic policies of Mekong governments ever since the late 1950s. Interestingly, it was the United States which, in a bid to contain the spread of communism, had sought to use hydro-development as a means to stimulate regional economic growth and, in so doing, undermine the communist appeal. In 1955, upon the request of Laos, Thailand, Cambodia, and Vietnam, the U.S. International Cooperation Administration commissioned the Bureau of Reclamation (USBR) to conduct a survey of possible development pathways for the Mekong. This was shortly followed by ECAFE's own feasibility study in 1957, which highlighted the necessity of joint planning and consensus-building among the Mekong countries for river management.²² By the 1970s, the Mekong Project became the centre of attention, with its grand design involving the construction of an eight-dam cascade on the lower Mekong mainstream.²³ The project elicited support from such organizations as the World Bank, the Asian Development Bank (ADB), as well as the Asia and Ford Foundations, while cooperating countries included at least eighteen countries – ranging from Canada, Belgium and the Netherlands to Japan, New Zealand and Israel. Interestingly, preliminary design work for the Manwan dam was completed in 1984 around the same time as when discussions over the Mekong Project were at their height. An unofficial study conducted by the Mekong Committee in 1989 on the potential effects of the Xiaowan dam on a proposed mainstream dam downstream, the Pa Mong,²⁴ even concluded that the Pa Mong would benefit from the Xiaowan's construction, as the latter's operation during the dry season could help increase the minimum flow into the former, thereby enabling greater hydropower generation.

Such a development mentality has since been reinvented in the present-day, as epitomised through initiatives like the ADB's Greater Mekong Subregion (GMS) project, aimed at encouraging regionalism. And closely linked to this focus on economic development are general trends relating to the valorizing of rivers. The public relations campaign for the Nam Theun 2, for example, was devoted to talking about "rivers of gold and silver" that would bring prosperity to Laos and its citizens.²⁵ It is also worth bearing in mind how one of China's planned dams in the cascade – the Jinghong dam – was originally intended to be a

²⁰ See "Xiaowan dam, A Reservoir for Progress," China Daily, September 16, 2003.

²¹ "China becomes hydro superpower," *China Daily*, August 26, 2010, <<u>http://www.chinadaily.com.cn/bizchina/2010-08/26/content_11204360.htm</u>>, [accessed 7 September 2012].

²² C. Hart Schaaf and Russell H. Fifield, *The Lower Mekong: Challenge to cooperation in Southeast Asia* (New Jersey: D. Van Nostrand, 1963), pp. 87-88, 83; ECAFE, *Development of Water Resources in the Lower Mekong Basin* (Bangkok: United Nations, 1957), p. 64.

²³ Note how this bears striking resemblance to the original Chinese design for the Lancang cascade.

²⁴ At the time, the Pa Mong dam was conceived as *the* defining scheme in the Mekong Project. David Jenkins, "The Lower Mekong Scheme," *Asian Survey* 8 (1968), pp. 456-457.

²⁵ Philip Hirsch, "Governing Water as a Common Good in the Mekong River Basin: issues of scale", *Transforming Cultures* 1:2 (2006), p. 112.

joint venture between Thailand's GMS Power and Huaneng Corporation's Yunnan subsidiary, Hydrolancang.²⁶ The Thai side was to contribute 70% of the investment for construction and in return the power generated was to be exported to Thailand.²⁷ Although the agreement eventually fell through, Thai investors continued to be involved in plans for the largest dam in the cascade, the Nuozhadu, with electricity generated from the dam to be connected to the GMS power grid.²⁸ In this regard, China's policy toward developing the Lancang-Mekong appears to be derivative of broader regional trends that view hydropower development as necessary for modernisation and even state-building.

Saving the Mekong: bringing the "public" back into the public sphere

At the crux of the debate over how to manage transboundary water resources is the question of what constitutes "good governance" and "best practices." The majority of analyses on the Mekong issue have focused mainly on how asymmetric upstream-downstream dynamics can serve as the basis for regional insecurity. Yet, there is another important dimension to the upstream-downstream dynamic – one which extends beyond the interstate level – deserving of attention: that is, the state-society dimension. From this perspective, upstream-downstream relations serve as a politicized site of social struggle and contestation for a complex cast of actors, ranging from governments and civil society to large hydropower companies operating within the state itself (e.g. Hydrolancang) – and their oftentimes conflicting motives and interests. The case of the Mekong's governance is thus best viewed as an "issue of scale," with the "primary dimensions and scale of conflict over water [being] more locally and socially than geopolitically constructed."²⁹

Indeed, the most ardent critics of China's Lancang cascade have been downstream communities aided by local and international NGOs like Living River Siam and International Rivers. It is certainly ironic that the arguments used to rationalize dam-building have been employed as the very reasons that these civil society actors have levelled to oppose these projects. As such, while the top-down decision-making model that has facilitated a dambuilding boom in the Mekong River Basin may have led to local disempowerment, there are increasing instances of local communities and NGOs refusing to remain as passive bystanders to an unfolding environmental crisis, with hydropower dams now becoming major sites of social resistance. Working on the ground, this emerging "Mekong civil society" (i.e. regional advocacy network) has been prominent in reaching out to affected villages, disseminating information, raising public awareness, and fundamentally disputing the rationale of hydropower development by challenging China's water rights and its upstream responsibilities. Frequently employing "shaming" strategies against the Lancang dams, these civil society actors have focused particularly on China's lack of transparency, calling upon the latter to share more of its hydrological information. For while China has been providing

 ²⁶ Also known as Yunnan Huaneng Lancang River Hydropower Company. China Huaneng Group constitutes one of China's "big five" power-generating companies.
²⁷ See Evelyn Goh, "Chapter Three: Development Cooperation and Regionalism", *Adelphi Series* 46:387

²⁷ See Evelyn Goh, "Chapter Three: Development Cooperation and Regionalism", *Adelphi Series* 46:387 (2006), p. 31.

²⁸ "Nuozhadu hydro plant starts trial operations," *China Daily*, September 6, 2012, http://www.chinadaily.com.cn/business/2012-09/06/content_15739771.htm>, [accessed 7 October 2012].

²⁹ Hirsch, 'Governing Water as a Common Good', p. 106.

wet-season hydrological data since 2002, it only began providing the MRC with dry-season hydro-meteorological data in (and so far only for) 2010 as part of the agreement reached at the first MRC meeting, and has said that it will continue to do so for "critical" years only. However it refused to share hydrological data for 2011, despite a drought and low water levels, claiming that 2011 was not "critical".³⁰

In pushing for the democratization of such common pool resources and greater public inclusion in formal decision-making processes, these non-state actors are effectively acting as important norm entrepreneurs working to "level the playing-field". The mass media of downstream countries – most notably, Thailand's *The Nation* and *The Bangkok Post* – have also played a crucial role in provoking debates by bringing Chinese upstream activities into the public eye and serving as a sounding board for local voices. Together, they are working to reconstitute the social bonds that exist between the state and the citizen, performing the important "legitimation function" of scrutinizing and challenging, when necessary, the state's exercise of power and authority.³¹

Indicative of this is the normative contestation that has emerged around the region's traditional development discourses. The prevailing fear here is that the Lancang cascade will irrevocably turn the Mekong into another Yangzi or Yellow River – both of which are dying. As reflected in the Save the Mekong coalition's slogan, where the Mekong River is framed as a river that "feeds millions",³² these groups have worked to shift the value of the river as derived from its "commodifiable" resources to the irreplaceable ecological services it provides – the latter which is largely omitted from state-led development discourses. Through petitions and the hosting of public seminars, as well as the publication of their own impact assessment reports, this nascent Mekong civil society has managed to problematize the purported advantages of hydropower by raising the "public profile" of those affected. In June 2009, for example, the Save the Mekong's region-wide petition was sent to the Chinese and Mekong governments, calling for a halt to dam-building upstream. More than 11,000 people, most of whom were subsistence farmers and fishermen living along the river, had signed it. Through this campaign, these actors succeeded in propagating knowledge about the cascade's ramifications to the general public: how, since the building of the first Chinese dam, a number of species have become endangered, notably the Mekong dolphin and manatee; and how fish catches are now less than half of what they were before, among other grievances.³³

But aside from civil society, a growing epistemic community has also added to the debate by disputing the scientific reasoning behind hydropower. Doubts have been raised as to whether hydropower really constitutes a "climate change-friendly" energy alternative, given the methane and carbon dioxide output caused by the inundation of vegetation cover, and how hydropower can attract energy-intensive industries that may construct coal-fired

³⁰ Interview, Bangkok, Thailand (20 May 2011).

³¹ Richard Devetak and Richard Higgott, "Justice Unbound? Globalisation, States and the Transformation of the Social Bond", *International Affairs* 75:3 (1999), p. 491.

³² The coalition is comprised of both national and transnational NGOs, including Oxfam Australia, Probe International, Mekong Watch, TERRA (Towards Ecological Recovery and Regional Alliance), and Rivers Coalition in Cambodia, among others.

³³ Thuy Ha, "World joins Mekong citizens in battle to stop dam building," *Viet Nam News Service* and *Asia News Network*, June 19, 2009, http://www.internationalrivers.org/node/4432, [accessed 14 June 2011].

power stations to compensate for the shortfall in water levels during the dry season.³⁴ Similarly, the effectiveness of "fish ladders" as a scientific remedy for the impacts of Mekong dams on fish migration is now largely dismissed, especially considering how the river contains no salmonoid fish species.³⁵ This is, moreover, accompanied by lingering doubts as to the actual capacity of Chinese upstream dams to help regulate wet and dry seasonal flows.

Contestation has, however, not been limited to just downstream riparian communities. Mass displacement due to dam construction, together with inadequate compensation, has posed as a persistent problem within China. In 2002, over 10 million people were estimated to have been displaced as a result of dam construction alone. Other related socioenvironmental issues, such as water pollution, aggravated soil erosion, landslides, industrial debris, and ecological fragmentation due to forest habitat destruction, have also proven problematic in the post-dam construction phase. Similar problems have likewise emerged following the construction of the Lancang's mainstream dams, particularly the Manwan, with advocacy campaigns spearheaded by grassroots Chinese NGOs like Green Watershed urging governments to reconsider what is at stake. Although the influence of these groups on government policies remains circumscribed, it does constitute a prospect for change that should not be discounted. Greater public awareness and official acknowledgement of the adverse ramifications of dam projects on affected communities have compelled officials to submit to some local demands, including the provision of more adequate compensation and even to the suspension of certain hydropower schemes, as was the case for the highly controversial Nu Jiang cascade, whose suspension by former Premier Wen Jiabao amounted to a significant achievement for public advocacy in China and the Mekong countries.³⁶

Notwithstanding the Chinese government's refusal to stop dam construction completely, there are signs suggesting how the efforts of civil society groups have not been entirely in vain. Chairman of Huaneng's Hydrolancang Wang Yongxiang, for one, has announced how his company will work to establish 'botanical gardens [for] rare plants and animal [rescue] stations' and take measures to ensure 'zero emissions' at the Nuozhadu dam and the maintenance of constant water temperature.³⁷ Most notable was Vice-Foreign Minister Song Tao's announcement at the 2010 Hua Hin Summit that the construction of the Mengsong dam – the final dam in the cascade – had been cancelled in response to an environmental impact assessment that indicated it would have a negative impact on fish migration. Song also revealed plans to build a counter-regulation reservoir at Ganlanba to prevent abnormal downstream fluctuations in water levels, and to incorporate a US\$30 million-stratified water intake project into the Nuozhadu's construction plan to mitigate the

³⁴ Meng Si, "Hydropower's green excuse," *China Dialogue*, February 14, 2011, <<u>http://www.chinadialogue.net/article/show/single/en/4105></u>, [accessed 20 January 2012]; Philip M. Fearnside, "Greenhouse gas emissions from hydroelectric dams: Controversies provide a springboard for rethinking a supposedly 'clean' energy source," *Climatic Change* 66 (2004), pp. 1-8.

³⁵ Milton Osborne, "Damming the Mekong", *The Interpreter*, March 30, 2011, http://www.lowyinterpreter.org/post/2011/03/30/daming-the-Mekong.aspx, [accessed 14 June 2011].

³⁶ With China's leadership transition, recent reports have, however, revealed how work on the Nu cascade is due to start again with official approval.

³⁷ "Lancang River Nuozhadu Hydropower Station," Hong Wang [Red Net].

dams' effects on the river's water temperature³⁸ -- measures which fall in line with suggestions proposed by hydro-engineering experts from downstream countries.³⁹

The related case of the Upper Lancang-Mekong River Navigation Improvement Project is likewise instructive. Under the Quadripartite Economic Cooperation (QEC) mechanism, China, Myanmar, Laos and Thailand agreed in 2000 to improve river navigation in order to develop the region's water transportation, with China pledging US\$5 million toward the project. Officially touted as a means to "reduce accidents and the attendant loss of property and life", safe commercial navigation was also promoted in view of expected benefits for trade and tourism in riparian states.⁴⁰ The blasting of rapids and shoals deemed as impediments to navigation was to be conducted in three phases, with the first phase (2002-2004) involving the removal of 10 major rapids, one shoal and ten scattered reefs to secure the almost year-round passage of large vessels.

This first phase, however, soon ran into strong opposition from communities, who argued that its consequences had been disastrous, evident from dramatic fluctuations in water volume. A report published by the World Conservation Union (IUCN) in 2006 further highlighted the threats to biodiversity caused by the blasting of rapids and shoals.⁴¹ River currents were also believed to have become stronger and faster, accelerating the erosion of river banks. And, indeed, there was reason for these fears. In August 2002, more than 113 Laotian households were forced to evacuate their village of Don Sawan located in Bor Kaew District due to alterations to that section of the Mekong's morphology that caused river bank erosion. Another village (Huay Xay) in the same district, located near to yet another Thai construction site for the Chiang Khong port, was also faced with similar problems of erosion and strong currents, which had washed away sections of the newly-built roads in the area. Thai villages situated along the river have also had their share of social grievances stemming from substantial bank erosion. In 2003, for example, the Mekong's currents had reportedly destroyed an area worth seven rai^{42} in the Thai village of Hat Bai.⁴³

Local and transnational civil society actors subsequently directed attention to how the EIA for the project's first phase was fundamentally flawed and lacking in credibility. The assessment had grossly underestimated the environmental, social and economic implications of the project, especially with regard to its long-term consequences, and had failed to give due consideration to the project's effects on downstream countries. Independent reviews of the EIA sponsored by the MRC in response to local concerns also presented similar results,

³⁸ Song Tao, "Work Together for Common Development", remarks to the First Summit of the Mekong River Commission, April 5, 2010, http://www.mrcmekong.org/MRC_news/speeches/remarks-H.E.Song-Tao-5-Apr-10.htm> [accessed 10 May 2010].

³⁹ Personal Communication with Chaiyuth Sukhsri, Bangkok, Thailand (20 May 2011).

 ⁴⁰ See Joint Experts Group, Report of Environmental Impact Assessment: Navigation Channel Improvements Project of the Lancang-Mekong River from China-Myanmar Boundary Marker 243 to Ban Houei Sai of Laos (September 2001).
⁴¹ Kate Lazarus, Pierre Dubeau, Channa Bambaradeniya, Richard Friend, and Latsamay Sylavong, An Uncertain

⁴¹ Kate Lazarus, Pierre Dubeau, Channa Bambaradeniya, Richard Friend, and Latsamay Sylavong, *An Uncertain Future: Biodiversity and Livelihoods along the Mekong River in Northern Lao PDR* (Bangkok and Gland: IUCN, 2006), p. 8.

⁴² The *rai* is a Thai unit of area. One *rai* is equivalent to approximately 1600 m².

⁴³ The Dhammayathra Project, Protecting the Khong River – the "Khon Phi Luang:" home to fisheries, plants, and peoples of the Khong [in Thai] (Bangkok: Sukhaphap Jai, 2004), pp. 138, 140.

with the assessment being further criticized for not taking into account the project's wider context, for its flawed methodology, and for the lack of public consultation.

Even though the project was undertaken by China in conjunction with three other Southeast Asian governments, public admonition and calls for accountability centered primarily on the Chinese government, as the latter was deemed most culpable for its role in spearheading and financing the project. The prevailing attitude was that Beijing should, at the very least, be "leading efforts to find out what is happening on the Mekong."⁴⁴ A manifestation of this came in March 2003, when Chiang Rai residents, along with representatives from the Chiang Khong Conservation Group, a Thai NGO, gathered in front of the Chinese Embassy in Bangkok to protest in light of the Mekong's abnormal water levels. Demands were put forward for the governments involved in the navigation project to place the protection of the rights of communities before concerns over improving trade relations.⁴⁵ With national news media dramatically reporting on how this gathering had halted river commerce in northern Thailand, thereby "threatening" the country's economy, this further added to the sense of urgency.

Under growing public pressure and in light of concerns raised by Cambodia and Vietnam over the potential adverse effects on the Tonle Sap and Mekong Delta, combined with the Thai military's findings that a faster-flowing Mekong could alter the country's border with Laos, the first phase of the navigation scheme was suspended – a development preceded months earlier by news of the QEC's disbandment. The Thai government was the first to announce in April 2003 that it would withdraw from the initiative, with the Thai cabinet also requesting a new EIA to be conducted for the Khon Phi Luang rapids on the Thai-Lao border. This was followed one year after by China's own announcement. Yielding to downstream demands, China reaffirmed the cancellation of plans to clear the rapids between Chiang Saen and Luang Prabang. Although some analysts largely attribute the project's suspension to military pressure on the Thai government, one cannot discount the importance of active campaigning and resistance from local civil society. Three separate confrontations between villagers in Chiang Khong district and Chinese surveyors were, in fact, reported prior to the announcement. Two of these confrontations were relatively "lowkey" and non-violent. The third, however, was more dramatic, involving a group of Thai village men, led by Niwat Roikaew of the Chiang Khong Conservation Group, boarding and taking over a Chinese vessel surveying the river. This lasted for several hours, though with no casualties on either side. One participant later recounted that after the event, Chinese ships would no longer dock on the Thai side of the river, docking instead on the Lao side.⁴⁶ What the resolution of the Mekong navigation project underscores is how the notion of ecological sustainability has become fundamental to the Mekong's governance not just in terms of outcomes but also in terms of process, as civil society actors increasingly call for inclusive governance mechanisms that take into account community water rights, and where upstream power comes with downstream responsibilities.

⁴⁴ "Response from Beijing needed," *Bangkok Post.*

⁴⁵ "Undercurrent of tension set to burst banks," *Bangkok Post*, March 8, 2010, <<u>http://www.bangkokpost.com/news/local/34070/undercurrent-of-tension-set-to-burst-banks</u>, [accessed 14 June 2011].

⁴⁶ Interview, Chiang Mai, Thailand (29 March 2013).

Towards greater sustainability? "Meeting the Needs, Keeping the Balance"⁴⁷

Aside from emerging signs of greater "responsiveness" on China's part, deeper participation from the public sphere has also encouraged gradual shifts in how "development" is understood and framed by states. In terms of water governance in the Mekong Basin more broadly, the growing import of the idea of ecological sustainability is reflected in such schemes as the GMS Biodiversity Conservation Corridors Initiative,⁴⁸ which recognizes a common purpose in safeguarding finite natural resources and invaluable ecological services to offset environmental hazards caused by extensive economic and infrastructure development.

Interestingly, the discourse of sustainability has in recent years become increasingly attached to climate change adaptation and mitigation, where climate variability is used (despite contention from the scientific community) to validate large-scale hydropower projects in an effort to pacify public disapprobation.⁴⁹ As asserted by MRC CEO Oliver Cogels. "Hydropower has the big advantage of producing electricity without carbon emissions and the respective impact on global warming".⁵⁰ The Chinese government, in particular, has favored the use of this "clean energy alternative" narrative to frame and legitimize its hydropower expansion at home and overseas. As is evident from the following observation from the Chinese Vice-Foreign Minister: "The scientific reasonable and orderly development and utilization of water resource [sic] meets the real need of people in the region to eradicate poverty and realize social and economic progress and is a major measure of using renewable and clean energy and addressing climate change."⁵¹ The claim that the Lancang upstream will help in mitigating the effects of climate change by regulating the river's run-offs during the dry and wet seasons also corresponds to this line of reasoning. Crucially, this point is supported by the MRC itself, which has attributed both the 2008 Great Floods and the 2010 region-wide drought to erratic and extreme rainfall induced by climatic irregularities.⁵²

This development is promising in part because it demonstrates how China is now motivated to publicly respond to external censure by justifying its dam-building activities, effectively suggesting how the Chinese government is beginning to take reputational issues seriously as it seeks to broaden its soft-power appeal within the region. But while one cannot deny the very real effects of climate change as manifest in the region's variable rainfall patterns and occurrence of saline intrusion, caution is needed in the use and acceptance of this climate change discourse. Not only can climate change serve as an "excuse" for outdated development paradigms, but it can also provide certain actors with the normative language

⁴⁷ See "Meeting the Needs, Keeping the Balance: Towards Sustainable Development of the Mekong River Basin," April 5, 2010, <http://www.mrcmekong.org/MRC_news/press10/MRC-Hua-Hin-Declaration-05-Apr-10.pdf>, [accessed 22 May 2010].

⁴⁸ ADB, "GMS Biodiversity Conservation Corridors Initiative: Strategic Framework and Technical Assessment"

⁽May 2005), p. 29. ⁴⁹ Philip Hirsch and Rosalia Sciortino, "Climate Change and the Resource Politics of the Greater Mekong Subregion," in ed. Kobkhun Rayanakorn, Climate Change Challenges (Chiang Mai: Chiang Mai University Press, 2011), p. 230.

⁵⁰ Oliver Cogels, "Mekong Hydropower Development Is Good," *Bangkok Post*, January 9, 2007.

⁵¹ Chinese Ministry of Foreign Affairs, "Vice Foreign Minister: China Is Ready for Pragmatic Cooperation with the MRC", April 5, 2010, http://www.fmprc.gov.cn/eng/zxxx/t677811.htm, [accessed 24 June 2011].

⁵² MRC, Annual Mekong Flood Report 2009 (Phnom Penh: MRC Office of the Secretariat, 2010).

needed to rationalize their vested interests. Needless to say, sizeable limitations remain vis-àvis the extent to which ecological sustainability can exist alongside the imperative to develop in national agendas. At risk of stating the obvious, to "meet the needs and keep the balance" is a difficult task, especially for industrialising nations. A recurring problem is how to ensure that such laudable rhetoric gets translated into actual practice. China is by no means the only country facing major impediments in doing so; mainland Southeast Asian governments are likewise going through a similar "learning curve." With regard to the Mekong's governance, the "diplomatic tango", whereby China oscillates between 'sustainability' and 'national development' narratives, is likely to continue.

The case of transboundary water governance in the Mekong River Basin, therefore, seems to attest to the predominance of state-centric conceptions of responsibility, where national development, economic growth, and the well-being of the Chinese people are prioritized. The Chinese government, from this perspective, is simply acting as a developing country should. Even so, such an inward-looking conception of state responsibility is one held not only by China, but is also shared by other state actors in the region. Whether it be the policy agendas of the individual riparian states or even the MRC and ADB, their reasons for hydro-development and infrastructure-led integration have remained fairly consistent over the years. Here, hydropower development is still viewed as a means to address rising regional power demands, as well as an opportunity for the Mekong countries to reduce poverty and relieve national debts.

Resistance at the local levels notwithstanding, the result has been a discernible lack of *major* contestation at the *interstate* level over the very notion that the Lancang-Mekong needs to be developed. The notion that "some sacrifice" must be made for the sake of the common good has proven to be an enduring one, and as such, much of the problem continues to center on the competing interests of the different stakeholders involved: that is, the Chinese state, its people, downstream communities and the river itself.

Conclusion

The politics of water has undoubtedly become an issue of geostrategic importance. Asymmetrical upstream-downstream relations, combined with overarching problems of water use and allocation, have meant that the management of transboundary water resources is highly contentious. In recent years, the Mekong River Basin has reemerged as a region of profound significance, mirroring international challenges where regional cooperation and local action are necessary for sustainable solutions. With rapid infrastructure-led integration resulting in deep-seated tensions between China and its neighbors, extensive hydropower development – combined with the effects of climate variability and increased resource competition in this once war-torn region – has given rise to a host of concerns regarding the future of this important international river. At issue here is the overarching question of how regional modernization and national economic progress are to be pursued without endangering local livelihoods and critical riverine ecosystems.

An upstream superpower, China is expected to shoulder greater responsibilities than other riparians – a fact also recognized by Beijing itself on various occasions. China should not, however, be solely responsible for the region's water governance, given how it is not the

only one harbouring ambitious hydro-development plans. Certainly, the case of the Lancang-Mekong River exemplifies how a spate of contending interests and diverse referents of responsibility has rendered the river's governance exceedingly complex and problematic. Essentially at issue here is the tension between long-standing development paradigms – that is, those which see the Mekong as a "virgin" river, whose water resources *should* be used to fuel national growth and the region's modernisation – and more people-centered approaches that stress ecological preservation, with the river viewed as the region's lifeblood.

But so long as the region's governments continue to subscribe to a development-led paradigm, with the cause of regional integration heralded as the key feature of the upcoming ASEAN Economic Community, transboundary water governance in the Mekong River Basin is likely to continue as an exercise of failed "responsibility-sharing". Three interrelated factors will have contributed to this outcome: first, the unclear definition of rights and responsibilities under existing water governance frameworks; second, the presence of 'thin' institutionalisation within the region; and third, the lack of public participation in formal channels of governance. As explained above, the case of the Mekong's governance attests to how the existence of multiple referents of responsibility has given rise to competing conceptions of responsibility and heightened tension between upstream-downstream water rights. This largely stems from the weakness of the region's existing environmental governance structures. The MRC, in particular, has been criticized for its inability to foster sustained state compliance and effect meaningful policy change among its members (Laos' refusal to properly address downstream concerns with regard to the Xayabouri dam is one current example). In response, the MRC has asserted that it acts foremost as a downstream river basin organization tasked with providing scientific and technical knowledge on the river, and facilitating information-sharing and transparency between members on proposed water projects.

On this view, the MRC's governance capacity remains circumscribed by its commitment to working with governments primarily at the technical level. This, in part, explains the organization's reluctance to openly criticize China's practices, electing instead for a more 'low-key' engagement strategy, which tends to see it cautiously endorsing Chinese hydropower schemes. In addition to the existence of weak institutional frameworks for enforcing compliance, the lack of effective mechanisms to enhance participatory representation, despite efforts by the MRC to implement the concept of IWRM in basin planning, has further meant that affected communities and civil society more broadly have yet to be adequately empowered in ways that would allow them to contribute more directly to policy-making at the regional, national and local levels.

However, this is not to suggest that change is impossible. With the notion of ecological sustainability gaining traction regionally and locally, this has enabled ideas relating to river conservation and environmental protection more broadly to filter into the public sphere. As previously discussed, it is at the grassroots level that processes of normative contestation have been most forceful. As civil society actors quickly grow in prominence *and* influence, mounting pressure is now placed on governments to shoulder more stringent obligations for the welfare of both communities and the environment. In the case of the Mekong River Basin, these non-state actors are playing an indispensable role in challenging the legitimacy of prevailing development discourses and, by extension, state authority in determining how

common natural resources are allocated and exploited. Though still rarely successful in changing state behaviour, by casting a critical light on China's Lancang dam cascade, these actors are nonetheless succeeding in mobilizing public awareness and empowering local communities to action across the region, while pushing for greater state accountability for transnational environmental harm.

That said, it warrants note that the challenges of water governance in the region are not just confined to hydropower development. Water pollution, rising urban water supply demands, large-scale water diversion projects, along with 'water-grabbing' behaviour on the part of energy-intensive industries, are putting increasing stress on the region's finite water resources. Acting on common responsibilities through regional and local cooperation thus proves all the more vital if development is to be pursued without jeopardizing local wellbeing and the Mekong's ecological integrity.



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