

Hydro/Power? Politics, Discourse and Neoliberalization in Laos's Hydroelectric Development

ABSTRACT Hydropower development is making a global resurgence due to endorsement by powerful global institutions such as the World Bank and the imperative to scale up renewable energy production to address global climate change. Employing a green governmentality lens, we analyze the debate surrounding one controversial dam in Laos, the Xayaburi. In the realm of hydropower development in the Mekong, a green governmentality approach allows for both an investigation of the macro-political influences on hydropower development, including trade liberalization and regional economic development, and the micro-political disciplining of state and non-state actors who, through legitimizing particular discourses and practices, reinforce global power relations. Our findings suggest that World Bank-style sustainable development discourses continue to shape ideas and practices relating to hydropower and sustainable development in Laos. However, we conclude that green neoliberalization does not fully explain how the Lao state is operating and that more attention to its practices as an authoritarian state is needed. This case moves the study of green governmentality forward by examining how green neoliberalization operates in a variegated, late-neoliberal world. **KEYWORDS** neoliberalism, governmentality, hydropower, Southeast Asia

INTRODUCTION

As nations get down to the business of implementing the pledges they made to reduce greenhouse gas emissions under the Paris Agreement of 2015, renewable energy sources are being scaled up (UNESCO 2015). Dams have been promoted by the World Bank and other powerful global institutions as ideal sustainable-development projects, and crucial to reducing global greenhouse gas emissions. Dams are built firstly for electricity generation, but in developing countries the justification for building large-scale dams often rests on the argument that revenue raised from the sale of hydroelectricity contributes to poverty alleviation, directly through access to electricity and indirectly by funding pro-poor initiatives (Khagram 2004). Extensive scholarship on impacts of hydropower on communities, however, has shown that funds raised by dams seldom address poverty and that relocated and downstream populations often far worse-off afterwards (Baird, Shoemaker, and Manorom 2015; Braun 2006; Conca 2006; McCully 2001).

The environmental and social impacts of hydropower are well known (Ansar et al. 2014; Conca 2006; Fearnside 2015; Kakonen and Kaisti 2012; McCully 2001; Tilt, Braun, and He 2009). Large dams, in particular, often disrupt natural flood cycles and alter fish migration. Dams also affect agricultural activity directly through the depletion and/or degradation of

available water supply and disruption of irrigation practices (Pukinskis and Geheb 2012; Ziv et al. 2012). Some dams can contribute methane emissions, calling into question their classification as “green” energy (Cornwall 2016; Fearnside 2015). Consequently, an international consortium of 300 civil society organizations released a manifesto calling for the exclusion of large-scale hydropower projects from climate initiatives (Anon 2016). Nevertheless, hydropower is still considered an essential element of emissions reductions under any global climate governance regime, and we can expect to see further dam construction worldwide.

Southeast Asian economies are growing rapidly, and regional demand for electricity has increased, particularly in the leading economies of Vietnam and Thailand.¹ Much of the region’s remaining hydropower potential lies in Laos, and the Lao government has declared its goal to become “the battery of Southeast Asia” by constructing an unprecedented 62 dams on the Mekong River and its tributaries, despite opposition from neighboring states, civil society organizations, and a growing anti-dam movement in Thailand (Fuller 2011; Roberts and Sager 2016). Laos is a poor, largely agrarian, ethnically diverse state with a one-party communist government and a politically violent history (Baird and Le Billon 2012; Fuller 2011; High and Petit 2013; Stuart-Fox 1997, 2006). During the height of the Vietnam War, the United States dropped millions of tons of bombs in Laos, making it the most bombed country per capita in human history (Dakin 2016).

The Mekong River is the second-most biologically diverse river in the world, supporting at least 850 fish species (Pukinskis and Geheb 2012). The ecosystems of the Lower Mekong Basin support the world’s most productive inland fishery, a primary protein source for two-thirds of the region’s 72 million people (Mekong River Commission 2010). In Laos alone, 70 per cent of rural households depend on fishing for their livelihoods. The total economic value of the fishery is estimated at USD 4–17 billion per year (Mekong River Commission 2010; So Nam 2015).

Large dams can have distinctly profound effects on fisheries and livelihoods. In areas where fisheries are a significant source of income, it is the poorest people, who often rely on fish for income and food, who are most affected (Grumbine and Xu 2011; Pearse-Smith 2012; Pukinskis and Geheb 2012). Many scholars and advocates are concerned that, despite the benefits of hydropower in terms of access to electricity and increased revenue, large-scale hydropower development plans can overestimate these benefits, while underestimating impacts to fisheries and livelihoods (Winemiller et al. 2016; Ziv et al. 2012).

To investigate the ongoing development of hydropower in Laos, we use a green governmentality framework to analyze a recent, and still unfolding, controversy over the Xayaburi Dam. Building on the green governmentality literature in global environmental governance (e.g., Gareau 2008, 2012, 2013; Goldman 2005; Sending and Neumann 2006; Watts 2002), we interrogate the impact that neoliberal norms, economic arrangements, and discourses have on actors involved in the state-led dam development of Laos. Discourses, written documents, and patterns of communication allow the self-management of actors in ways that reinforce state and supra-state power. In this way, “governmentality refers to the ways that subjects are produced to help stabilize and rationalize systems of power” by legitimizing certain discourses and minimizing others (Gareau 2013: 30). For instance, Laos has long been a site of World Bank–led sustainable-development projects, and fits the characterization of

a developmental state shaped, in part, by the green neoliberal practices of the World Bank (Baird et al. 2015; Goldman 2005). As a result, sustainable development has taken on a series of concerns that emphasize profit generation and minimize discourses that point out the local effects of large-scale projects on marginalized groups. Goldman describes the process of green governmentality as the fusion of the Foucauldian conception of power as a product of discourse and subtle techniques of self-rule, combined with neoliberal pressures created by powerful actors pressing for the opening of foreign markets (Foucault 1980; Goldman 2005). Consequently “green neoliberalism” is best understood as a process of rule enforcement with both macroeconomic (neoliberal pressures from powerful global and state actors) and micropolitical (discursive frames that compel actors to self-manage their engagement with the state and other actors) elements.

But the particular iteration of green neoliberalism in Laos has also been shaped by its authoritarian political system. Scholarship on sustainable development in Laos documents how the implementation of global environmental governance projects is anything but uniform (Barney 2012b; Singh 2014). Indeed, the very plurality of environmental and legal policies in Laos has often been used by the government to obfuscate its increasingly neoliberal environmental agenda (Suhardiman and Giordano 2014).

Our case study complements existing research by examining the co-production of hydropower and sustainable-development discourses in the case of a single, controversial dam. It examines the evolution of neoliberalization processes and political-economic change in the Mekong Region. Our aim, then, is to consider: How do processes of green neoliberalization intersect with the practices of an authoritarian state in the case of hydropower in Laos?

We examine the recent history of political-economic change in Laos, where changing economic policies and evolving relationships with international financial institutions, donors, and neighboring states have influenced the development of dam discourses and practices. We review the recent neoliberalization processes that have restructured the possibilities for dam building in the Mekong Region. Finally, we analyze dominant discourses and practices of prominent state and non-state actors regarding the Xayaburi Dam. Throughout, the governmentality approach allows us to consider how green neoliberal rationality has informed the construction of the Xayaburi Dam. Our findings suggest that hydropower development in Laos continues to be shaped by the eco-rationalities of World Bank-style sustainable-development discourses, which we call hydropower/knowledge (Foucault 1980, 1991). However, when green neoliberal processes collide with practices of an authoritarian state, powerful global discourses are used and interpreted according to the needs of the state. By interrogating the Xayaburi debate, we identify the forms of hydropower/knowledge at work in Laos and are thus able to ascertain how the global neoliberal regime continues to operate through the co-production of dams and discourses.

GREEN NEOLIBERALISM

If neoliberalism is premised on the idea of *governing* through markets, green neoliberalism is about *developing* and *protecting nature* through markets. While neoliberalism is by turns a political, economic, and ideological project, it is also an environmental one (Bakker 2010; Brenner and Theodore 2002; Castree 2010: 201; de Freitas, Marston, and Bakker 2015;

Heynen 2007; McCarthy and Prudham 2004). Contemporary neoliberalism originates in the reorganization of society's relationship to nature using liberal ideals, through the enclosure of common resources and in the emphasis on individual rights to own nature, protected by the state (McCarthy and Prudham 2004).

Scholarship on green neoliberalism examines the multiple dimensions of neoliberalism, as “both a multiscale disciplinary regime and a project of accumulation, wherein the disciplining of socio-natural actors is articulated with translocal processes, yet refracted through local conditions” (Bakker 2010: 728). It is critical that case studies explain clearly both how the socio-natural actors involved in local processes of neoliberalism are enrolled in such activities, and how such actions are linked to the neoliberal disciplinary regimes of global and/or regional scales (White, Rudy, and Gareau 2015).

Green Governmentality

A growing literature applies a governmentality analysis to considerations of nature, ecology, and sustainable development in a neoliberal milieu (Devine, 2016; Ekers and Loftus 2008; Gareau 2013; Haughton, Allmendinger, and Oosterlynck 2013; Seki 2009; Varman, Skalen, and Belk 2012; Watts 2003). Drawing on Foucault, green governmentality scholarship identifies discourses, practices, and processes of governance that privilege particular ways of seeing, acting, and thinking and particular forms of power/knowledge (Dean 1999; Dryzek 2013; Foucault 1991; Gareau 2012; Oels 2005; Rutherford 2007; Sending and Neumann 2006). Through this “enviro-discipline” particular assumptions about environment, development, economy, and society are legitimized and framed in ways that serve to reproduce power relations through the enforcement of neoliberal logic in environmental governance (Darier 1999; Gareau 2012; Goldman 2005; Luke 1999; MacKinnon 2000).

GREEN NEOLIBERALISM IN SOUTHEAST ASIA

Studies of neoliberalism in Southeast Asia have noted that powerful authoritarian regimes limiting foreign investment have resulted in the comparatively recent uptake of neoliberal-style projects there (Nevins and Peluso, 2008; Seki 2009). Recently, neoliberalization has advanced steadily through the region via environmental policies restructuring the management of forests and water resources under the aegis of “sustainable development” (Goldman 2005).

The process of green neoliberalization in Southeast Asia has been far from monolithic, and recent scholarship questions the usage of neoliberal ideology in the region. In some authoritarian states, military-led one-party rule operates in a context of “weak” capacity to implement any reforms, neoliberal or otherwise, at the local level without opposition and manipulation by local elites (Barney, in Nevins and Peluso 2008; Barney 2012a). For example, despite neoliberal economic reforms, the Vietnamese state is still driven largely by patronage-based practices and structures of power that predate neoliberalism there (Gainsborough 2010). The Communist Party has learned to work with external donors and global institutions in ways that still serve the interests of the party elite. As Vietnam has become more globally integrated, Vietnamese elites have, through a “marriage of convenience,” aligned their interests with those of global elites: “Viewed in this way, it is possible

to conceive of neoliberalism as both weakened as a force in global politics . . . and strengthened as the interests of elites in Vietnam genuinely become bound up with that of global capitalism” (Gainsborough 2010: 485).

In an analysis of forestry in Laos, Barney (2012a) suggests that environmental transitions are “neoliberal influenced,” where a strongly authoritarian state is largely influenced by foreign bilateral donors and foreign investors, but where central-state priorities are not always concordant with local conditions. Green neoliberal reforms have been selectively adopted by the Lao government when they align with current state political-economic interests, but ignored or unevenly implemented when they do not (Dressler et al. 2014; Singh 2014). This suggests that neoliberalism interacts with varying forms of authoritarianism and state-controlled development, and is often “present but not powerful” in Southeast Asia (Gainsborough 2010).

Several studies have investigated the shifting dynamics of hydropower development in the Mekong Region and its increasingly neoliberal nature (Hirsch 2010; Matthews 2012; Merme, Ahlers, and Gupta 2014; Middleton, Garcia, and Foran 2009). We examine a single hydropower project in Laos to better understand how regional and global processes of neoliberalization have contributed to the formation of a particular understanding of what constitutes sustainable development in Laos, and to examine what, if any, the effects of authoritarianism have been on sustainable development there.

The Xayaburi Dam

In 2007, the Lao government signed a memorandum of understanding with Ch. Karnchang, a Thai construction company, to build the first dam on the Mekong River outside of China, the Xayaburi Dam. All Mekong Region countries are required to inform their neighbors of planned construction on the Mekong mainstream under the prior-notification requirement of the 1995 Mekong Agreement. The Mekong Agreement is a framework for cooperation among Cambodia, Laos, Thailand, and Vietnam for the sustainable development of the Mekong River Basin, which is facilitated by the Mekong River Commission (MRC). In 2010, the Lao government submitted Xayaburi Dam documentation to the MRC’s prior-notification process. Also in 2010, the MRC released the final version of its commissioned strategic environmental assessment, calling for a 10-year delay of all Mekong mainstream projects, pending further study of impacts—recommendations which were endorsed by the World Bank. However, news reports from the *Bangkok Post* beginning in 2011 revealed that construction of the dam had begun (Geheb, West, and Matthews 2014)—see Figure 1.

Of the hydroelectricity produced at Xayaburi, 95 percent will be sold to Thailand, per a purchase agreement between the Electricity Generating Authority of Thailand, Thailand’s electricity utility, and the developer of the dam, the Xayaburi Power Company. The Xayaburi Power Company is a subsidiary of a Thai construction company (Ch. Karnchang, the same company building the dam), and loans for the development of the dam are from Thai banks.

The potential impact of the Xayaburi Dam itself, along with other mainstream Mekong and tributary dams, is contested. The independent strategic environmental assessment commissioned by the MRC found that dam projects on the Lower Mekong mainstream would represent a “global loss” of biodiversity and cause an estimated fishery loss worth



FIGURE 1. Extensive Construction at the Dam Site in 2012 Indicated the Government's Willingness to Build Despite Objections from Riparian States

(Photo by Kathryn Olson).

USD 500 million per year. The cumulative effects of either mainstream or tributary dam development could have significant adverse impacts on the environment and on the livelihoods of the millions of people who depend on the river (Pukinskis and Geheb 2012; Ziv et al. 2012).

METHOD

Information for this case study was obtained from fieldwork conducted in 2012. The lead author conducted 15 semi-structured interviews with key actors in the Xayaburi Dam debate. The interviews were nominally structured to allow descriptive answers and exploration as appropriate. However, they were guided by a series of questions falling into the following categories: perception of major actors and motives, perception of risks and benefits of hydropower and the Xayaburi Dam, purposes of hydropower, conceptions of sustainable development, and the role of hydropower in economic development. Interviews were kept anonymous to protect the identities of the interviewees, but an attempt was made to garner a range of perspectives on hydropower in Laos. Interviewees included representatives from the government of Laos, the MRC, international donors such as USAID and AusAID, the hydropower industry, international environmental NGOs with offices in Laos and Thailand, international organizations with offices in Laos, freelance journalists, hydropower consultants, and environmental consultants.² Interviewees were selected based on their affiliation with relevant state and non-state institutions and their involvement in ongoing hydropower debates. The lead author also attended the first official visit to the Xayaburi site

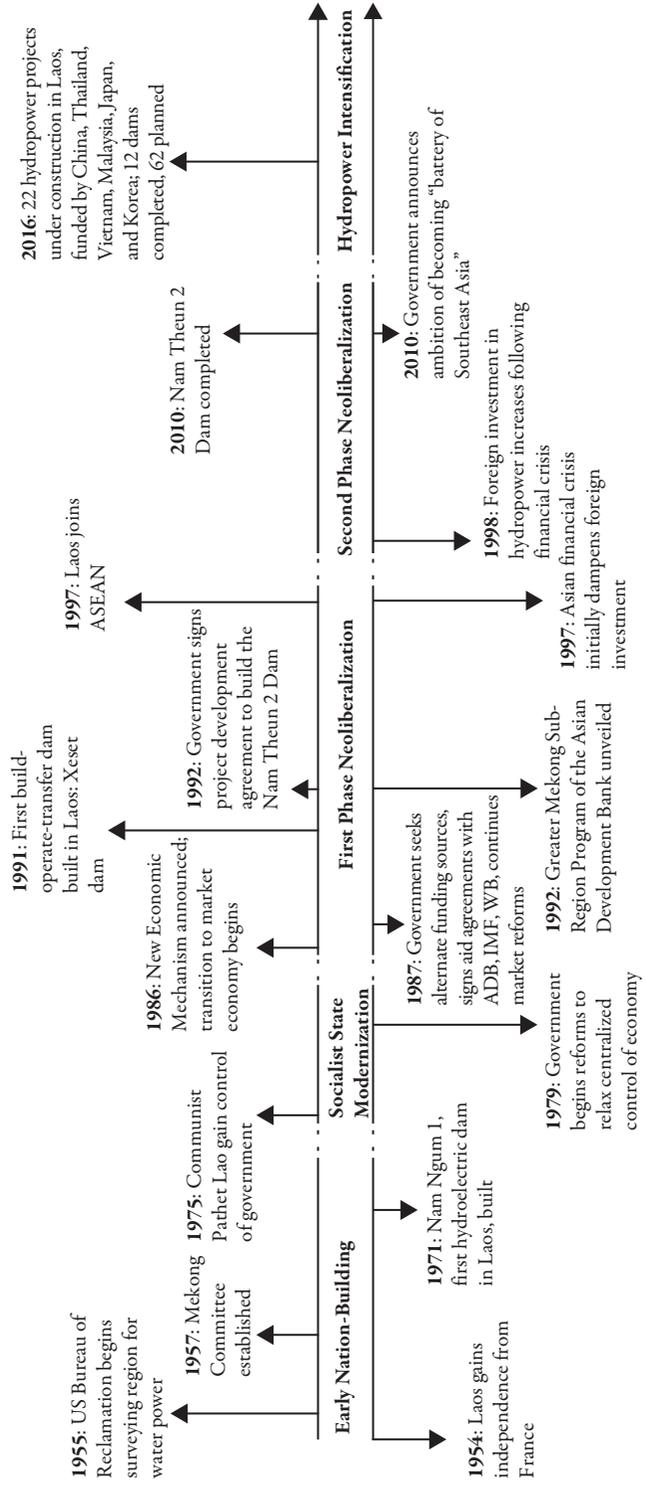


FIGURE 2. History of Water Development and Neoliberalization in Laos

with various NGO, IGO, and other international actors and media representatives on July 16, 2012. Finally, key reports and websites of the major actors, as well as international media coverage on the Xayaburi debate, were analyzed.

We also reviewed the academic literature on water and development in Laos in order to connect political and economic reforms starting in the 1980s to expansion in hydropower development, as Laos transitioned from a centralized socialist economy to a market economy focusing on foreign investment in natural resources.

HYDROPOWER, DEVELOPMENT, AND PROCESSES OF GREEN NEOLIBERALIZATION IN LAOS

Ideas about damming the Mekong River, indeed the very notion of a coherent Mekong Region, can be traced back to powerful global actors, notably the United States (Bakker 1999; Sneddon and Fox 2012). Below, we trace the history of development, hydropower, and political-economic change in contemporary Laos, organizing it into four distinct phases.

Early Nation-Building, 1954 to 1975

To understand the current acceleration and neoliberal character of hydropower development in Laos, it is useful to revisit when the first seeds of this development were planted, more than half a century ago. In 1954 Laos gained independence from France. This spurred a two-decade civil war between the U.S.-backed monarchy that controlled Vientiane and southern Laos, and the communist Pathet Lao, which controlled its central and northern reaches (Evans 2002; Rigg 2009; Stuart-Fox 1997). As the Cold War deepened and the U.S. Central Intelligence Agency engaged in its “secret war” within Laos, diplomatically, regional economic partnerships were promoted by the U.S. and the United Nations.³ Following the recommendation of the United Nations Economic Commission for Asia and the Far East, the Mekong Committee was established in 1957. With representation from Vietnam, Laos, Cambodia, and Thailand, the committee was largely funded by the U.S., which used it as a vehicle for its containment policy, advocating economic development and regional cooperation through water resources in the Lower Mekong Basin (Bakker 1999; Geheb, West, and Matthews 2014; Molle, Foran, and Floch 2009; Sneddon and Fox 2011, 2012). As early as 1955, experts from the U.S. Bureau of Reclamation and Army Corps of Engineers were deployed to survey Thailand, Laos, and Cambodia and uncover opportunities for “controlling” and “harnessing” water. These efforts were codified in three influential reports and development plans that recommended extensive damming of both the Mekong mainstream and its tributaries and informed the first basin development plan, published in 1970 (Geheb, West, and Matthews 2014; Matthews 2012; Molle, Foran, and Floch 2009). These reports have had a lasting influence, in their conception of the Mekong Basin as a coherent geographical entity, as well as the vision of development and modernization through construction of large-scale dams (Bakker 1999; Geheb, West, and Matthews 2014; Sneddon and Fox 2012).⁴

The U.S. shaped current environmental and geopolitical relations in the region in other ways reflected in its relationship with Thailand. As the U.S.’s greatest regional ally, Thailand received significant financial (and military) aid and technical support for infrastructural

development from the U.S. and the World Bank during the 1960s and 1970s. The U.S. steered Thailand's early hydroelectricity development and encouraged it to establish a state-owned electricity utility, the Electricity Generating Authority of Thailand. In 1971, the first hydroelectric dam was completed in Laos, the Nam Ngum Dam, with considerable U.S. support (Geheb, West, and Matthews 2014). Much of Nam Ngum's electricity was exported to Thailand, where the U.S. had an air force base in need of electricity (Geheb, West, and Matthews 2014; Middleton, Matthews, and Mirumachi 2014).

Socialist State Modernization, 1975 to 1985

In 1975, the Pathet Lao gained full control of the country. Up to this point, the U.S. had supported the Royal Lao Government, but with the new government, the U.S. withdrew aid almost entirely, between 1977 and 1999. The Soviet Union increased its aid, as did the Asian Development and World Banks. The United Nations Development Programme, which had previously funded the Mekong Committee, dropped its donations from USD 5.6 million in 1973 to zero in 1976. As conflict in Vietnam, Laos, and Cambodia intensified, and funding declined, hydropower development plans in the Mekong Region waned, and the Mekong Committee disbanded in 1975 (Molle, Foran, and Floch 2009). The interim Mekong Committee was established in 1978 and was eventually reborn as the MRC in 1995, with the signing of the 1995 Mekong Agreement (Molle, Foran, and Floch 2009).

The new Lao People's Revolutionary Party initiated widespread political-economic reforms beginning in the late 1970s. Since coming to power, the party had been managing dismal economic conditions amid continued geopolitical unrest and internal anti-communist uprisings (Baird and Le Billon 2012; Stuart-Fox 1997). Seeking to increase agricultural production, boost state revenues, promote internal security, and assert greater influence over the rural population, the state rolled out a series of radical reforms, including widespread taxation, centralized planning, and the creation of rural agricultural cooperatives (Evans 2002; Rigg 2009; Stuart-Fox 1997). These reforms were extremely unpopular. Collectivization failed to improve agricultural productivity, and it nurtured resentment toward the party and strengthened internal resistance efforts. The failure of reforms to achieve any of the party's goals, and concern from Soviet and Vietnamese funders, led to the suspension of agricultural cooperativization in 1979 (Stuart-Fox 1997: 182; Evans 2002: 194). In December of 1979, party leadership announced a scaling-back of the state's orthodox communist organization of the prior four years, lifting some restrictions on private enterprises and relaxing controls on regional trade (Evans 2002; Stuart-Fox 1997). These changes foreshadowed a full-scale economic restructuring toward neoliberalization, which would be fully initiated in 1986 with the announcement of the New Economic Mechanism.

First Phase Neoliberalization, 1985 to 1997

The announcement of an official change in party policies came in 1986, with the passage of resolutions under the New Economic Mechanism, marking a formal break with socialist economic development policies. The party's leader, Kaison Phomvihane, argued that adoption of market economy elements would ultimately allow Laos to transition to a strong socialist state (Stuart-Fox 183; Evans 2002: 197). The nascent economic boom in Southeast

Asia lent credence to the benefits of a liberalizing economy and the promise of “state capitalism as the road to socialism” (Evans 2002: 197).

Unlike China and Vietnam’s models of public bureaucracies, in Laos a system of political patronage networks was the backdrop for market reforms. The New Economic Mechanism provided new scaffolding around which to build this system: it “was a political necessity, to address the deteriorating economic situation, but one unforeseen outcome was to provide new opportunities for the new political-economic elite to pursue their personal interests under the cover of the Party” (Stuart-Fox 2006: 68–69).

New liberalization policies were rolled out, including devolution of central state authority to provincial officials; abolishment of subsidies to state-owned enterprises; restructuring of investment codes to allow foreign investment and encourage private investment in state-owned enterprises; aligning Lao currency to the market rate; and simplification of trade procedures (Evans 2002; Rigg 2009; Stuart-Fox 1997).⁵ One of the key reforms of the New Economic Mechanism was to decentralize state authority over expenditures, taxation, banking, and revenue, giving more power to provincial officials. This remains one of the reasons for the high degree of corruption in Laos, as “provincial administrations are the virtual fiefdoms of powerful province governors” (Stuart-Fox 2006: 63). This has been a key driver of environmental degradation in Laos, particularly of forests, as local authorities pursue concessionary agreements of benefit to themselves, with little to no attention to central-government efforts to impose environmental regulations (Barney 2012b; Singh 2014).

Economic liberalization accelerated in 1987 following an economic downturn and increasing understanding of the need to look beyond the USSR for financial aid and assistance. With 70 percent of Laos’s foreign aid coming from the communist bloc in 1986, the government began a swift campaign to diversify assistance, striking aid agreements with the IMF, the ADB, the World Bank, Japan, France, and Australia (Dressler et al. 2014; Evans 2002; Stuart-Fox 1997). With aid came advice to further open the struggling Lao economy to foreign investment and development. Among the recommendations was to strengthen regional economic integration through the Greater Mekong Subregion program of the Asian Development Bank (ADB), which channeled aid and assistance into infrastructure projects that would continue to nurture the emerging market-based economies of the region (Molle, Foran, and Floch 2009). In 1997, Laos joined the Association of Southeast Asian Nations (ASEAN).

Thailand and Vietnam’s electricity sectors continued to liberalize, and as demand for electricity increased, developing hydropower for export in Laos returned to the agenda (Middleton, Grundy-Warr, and Yong 2013). By 1995, twenty-three private-sector developers from Korea, Australia, Europe, and North America had signed memoranda of understanding for building dams in the country (Middleton, Garcia, and Foran 2009). Yet the hydro-development landscape had shifted in two notable ways. First, there was growing understanding of the negative impacts of large dams, which led the World Bank to suspend its funding of large infrastructure projects for a decade (Geheb, West, and Matthews 2014; World Commission on Dams 2000). Second, adoption of neoliberal economic reforms encouraged new mechanisms for private sector–led development of water resources, most notably build-operate-transfer (BOT). BOT agreements dictate that private-sector developers

and financiers build and operate a hydropower project for a period of time, usually 25 to 30 years, and then transfer full ownership to the state. During this time, financiers and developers have exclusive water use rights and decision-making power and, since they will transfer ownership to the state in the short term, no economic interest in considering the long-term implications of the project. The BOT framework is, in a sense, a built-in mechanism for the exploitation of the water resource, as long-term maintenance of the dam itself and indeed the consequences for ecosystems and livelihoods are deferred. The first BOT dam was built in Laos in 1991, and in 1992 the government signed a project development agreement with 16 commercial banks (of which 9 were Thai) and the World Bank to build the Nam Theun 2 (NT2) Dam, with the concession agreement finalized in 2003.

The NT2 project, a collaboration among the government of Laos, the World Bank, the ADB, and 25 other funders, was the costliest hydropower project ever undertaken and is considered “the most complex public-private partnership in the history of dam development” (Wong 2010: 107, as quoted in Merme, Ahlers, and Gupta 2014). With provisions for lengthy public participation, resettlement funds, and new environmental legislation, NT2 marked the World Bank’s return to hydropower and remains its model project (Porter and Shivakumar 2010).

Despite unprecedented public consultation and environmental and social provisions, downstream impacts on water quality, fisheries, irrigation, and livelihoods are profoundly negative (Baird, Shoemaker, and Manorum 2015). NT2 represents a shift in dam-building from largely public to private ownership and financing, and a parallel shift in decision-making authority and water-use rights (Merme, Ahlers, and Gupta 2014: 27).

Second Phase Neoliberalization, 1997 to the Present

In 1997, the Asian economic crisis dampened enthusiasm for private hydropower development as available capital and electricity demand plummeted. But as the region recovered, so did interest in private dam development. Prior to 1997, dams in the Mekong Region were mostly funded through a combination of World Bank, ADB, and state-owned utilities, which did ensure some environmental and social safeguards (Merme, Ahlers, and Gupta 2014). Private-sector developers seeking to build hydropower projects in Laos were largely Western, particularly French and Norwegian (Middleton, Grundy-Warr, and Yong 2013). However, since the economic recovery, this has shifted, and potential developers are mostly from Asian countries (Middleton, Garcia, and Foran 2009). The transition toward mostly private, Asian investors and away from World Bank and ADB oversight means that the social and environmental safeguards rolled out during the NT2 project often go unenforced. In addition, state-owned projects are decreasing, while public-private partnerships and private BOT projects are increasing (Middleton, Grundy-Warr, and Yong 2013). Dams are also increasing in size and cost. The Xayaburi Dam, a USD 3.8 billion project, will be nearly triple the size of NT2, with installed capacity of 1,285 MW.

According to the government of Laos, there are currently 22 hydropower projects under construction in Laos. Laos is partially investing in 14 dams, China in 6, and Thailand in 5 (Government of Laos 2015). As China and Laos opened up their markets to foreign investment, and the ADB’s Greater Mekong Subregion program promoted closer ties through the

development of infrastructure, each sought ways to promote economic partnerships. China, which currently leads the world in hydropower construction, has looked for ways to develop electricity beyond its own domestic markets, increase foreign direct investment and trade, and meet its greenhouse gas emissions targets (Matthews and Motta 2013).⁶ In Laos, China has found an ideal partner for this green neoliberal development strategy: “The Chinese practice is hence often to bundle aid, trade and investment by providing, for example, both investments and concessional loans for dam building and linking this to the export of electricity coupled with the import of Chinese manufactured goods and trade deals for Chinese firms” (Urban et al. 2013: 312). China is currently Lao PDR’s largest trade partner, and its aid programs to Laos are greater than those of the U.S. (Matthews and Motta, 2013). Today, Laos and China are both members of the World Trade Organization, as are Cambodia, Vietnam, and Thailand. In 2010, Southeast Asia became the third-largest free trade region in the world when China became part of the ASEAN–China Free Trade Area. This has not escaped the U.S.’s notice, which has increased diplomatic relations with Laos to counter Chinese influence (BBC News 2016).

This history demonstrates under what conditions processes of neoliberalization began in Laos and how hydropower and water resources development simultaneously became an arena for neoliberal economic development. Geopolitical relations, both regionally as with China, and globally as with the U.S., have been instrumental in shaping ideas and practices surrounding hydropower development in the Mekong Region. To further understand the dynamics of this process, however, and to trace how particular forms of hydropower/knowledge have emerged as influential during the ongoing process of neoliberalization, we now turn to examining the case of one contemporary dam project in Laos.

“POWERING PROGRESS”: HYDROPOWER/KNOWLEDGE IN LAOS

The English website of Laos’s Ministry of Energy and Mines shares hydropower planning documents, relevant environmental policies, presentations, and even photos of staff. Entitled “Powering Progress,” the website is adorned with an upper-level banner graphic (Figure 3). On the left is a Lao landscape of green rice paddies, people working in the fields, and water. This gives way to pictures of different energy technologies: nuclear reactors, windmills, and solar panels, with a large dam at the center and transmission lines fading away to the right. The graphic symbolizes, among other things, harmonious coexistence between traditional Lao livelihoods such as rice cultivation and modern technologies of power.

A dam is a technology of power that converts energy from the flow of water into electricity. Visually, it is a symbol of modernity and technical mastery. In the development context, a dam is an instrument of power inasmuch as the forms of power/knowledge associated with dam-building privilege certain possibilities for rivers, people, and development while forsaking others. The fields of hydropower/knowledge associated with dam development in Laos, while once co-produced by financial institutions and the state, are increasingly influenced by direct relations between the state and private investors. The following interviews and quotations, documented during a particularly strained period in the development of Xayaburi—as the government insisted that it had not begun construction on the dam while the NGO International Rivers released photos of its construction—demonstrate the

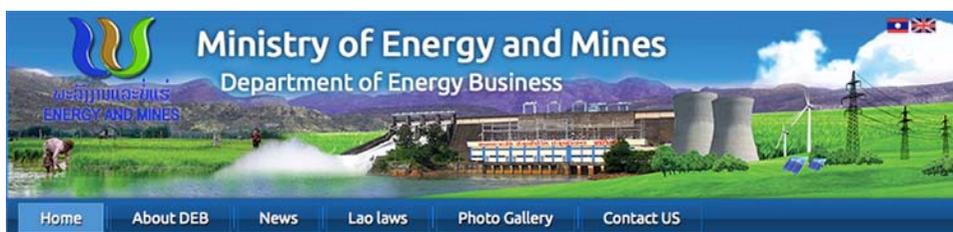


FIGURE 3. Imagery on the Website of the Ministry of Energy and Mines.

normalization of particular ideas, discourses, and knowledges about hydropower, economic development, and sustainable development that reinforce the logic of neoliberalization through large-scale green development.

Sustaining Development

The World Bank has been promoting hydropower as a solution to poverty alleviation in Laos and the Mekong, through electricity access and broader programs funded by hydropower revenue, since at least the early 1990s (Cooper 2010; Grundy-Warr and Yong 2012). This is part of the bank's broader narrative on using natural resources for economic development and poverty alleviation, a narrative presented as the only option for sustainable development (Goldman 2005). But in practice, it is difficult to know whether hydropower revenues make it to poverty-reduction programs, for many reasons, including corruption and lack of transparency. Laos is considered one of the most corrupt countries in the world, and corruption there takes many forms (Stuart-Fox 2006; Transparency International 2015).⁷ Somewhere between 5 and 20 percent of hydropower project costs are paid in corruption money (Matthews 2012: 402). Furthermore, project partnerships are forged at the discretion of government officials: "Hydropower concessions appear to be assigned to concessionaires on an ad hoc basis by . . . officials, rather than a competitive or merit based process" (Foran, Wong, and Kelley 2010: 18). Though the government states its intentions to use hydropower revenue for poverty reduction, examples of policies and programs for doing so remain elusive (Matthews 2012).

The assumption that electricity generated from large dams reaches poor populations, and improves livelihoods when it does, has also been questioned (Kakonen and Kaisti 2012). These observed processes of corruption on the ground in Laos, and the tenuous link between poverty reduction and hydroelectricity, challenge the government's assertions that its pursuit of hydropower is to improve conditions of poverty among its citizens. Rather, it seems possible that the state adopts the World Bank's rhetoric of developing hydropower for economic growth and poverty reduction to justify economic decisions that benefit certain members of the party elite. According to one staff member at an international organization in Laos, "The World Bank's version of environmentalism provided the party elite with a narrative behind which it could hide" (pers. comm., January 14, 2016).

An example of a discursive tool used to justify hydropower for economic growth is the expressed need to graduate from least developed country (LDC) status. Hydropower is

often presented as being pursued for lack of viable development alternatives, motivated by the desire to meet internationally established poverty-reduction goals by 2020.⁸ One senior environmental official made this explicit, when asked why the Xayaburi Dam was being pursued: “We are a poor country. We do not have many options if we want to lift our people out of poverty and move out of the LDC. This project will raise the GDP and help our people” (interview, July 12, 2012).

As Goldman (2005) documents, this “there is no alternative” narrative is frequently used in Laos to justify large-scale sustainable-development projects involving global development institutions. Both state and non-state actors cite a lack of development alternatives to big dams. A foreign engineering consultant for the MRC expressed a tendency for the international community to emphasize sustainability while overlooking this sense of no alternatives:

I feel sympathy for Laos, actually. They’re relying on the natural resources of the country, but they really have no other options. People do this—other countries do this and they survive. It’s hard for them. The foreign community coming in to observe here—[they are] not understanding the dynamics and using their own value system to judge them. What happens is we come with our highfalutin ideas of what sustainability means. We absolutely should be pushing that as much as we can, but depending on where you are on the scale of needs you have different things that are very important. Same for our societies when they were in their infancy—they were attacking things at that level of understanding. Of course you don’t want people to make the same mistakes again, but the country is poor. They don’t have resources, they don’t feel independent—if they get an opportunity they’re going to pursue it. Somebody talking about preserving the Irrawaddy dolphin—uh, that’s interesting and it’s nice but our needs are different. (Interview, July 13, 2012)

Here, the interviewee expresses both acceptance of the lack of development alternatives and acknowledgement that the desire for independence motivates state actors. The interviewee made this even more explicit by continuing, “Economic development and national pride go hand in hand. . . . They want to tell people we don’t just have an economy based on subsistence farming, that [our economy] is going places and we’ve got a development agenda.” Another energy official within the Lao government described the decision to pursue Xayaburi as the optimal choice for a poor country with abundant resources and a strong state:

Other countries in the region have established ways for developing economically—Singapore has the know-how, Thailand has diversified with foreign investment, agriculture, etc., China is developing its resources and doing manufacturing, but we in Laos don’t have that. What we do have is our natural resources and we must develop them to develop our economy. We are a country of farmers, subsistence farmers, and we have an ambitious government. Our goal is to raise our farmers out of poverty by using our natural resources for economic development. (Interview, July 11, 2012)

Here we see the rationality of the green neoliberal project, where hydropower, forestry, and agriculture are tools for pursuing an economy based on the commodification of nature, and where the role of the state is to ambitiously govern through capital-intensive sustainable

development. But more than just a rhetorical tool, these statements suggest that the *mentality* of large-scale green development is shaped by the international hierarchy of development, institutionalized in the LDC designation. LDC status, the above quotations suggest, is demeaning to the state, undermining its pride and sense of independence. Large-scale development projects, according to the rationality of neoliberal economic development, are an efficient way to raise revenue and signal to the international community that the country is determined to “develop its economy.”

This “mentality of rule” (Dean 1999) requires a specific application of concepts that restrict the complexity of socio-natural relations to more easily quantifiable terms. In a 2010 report on wealth and sustainability, World Bank economists offered a quantitative assessment of opportunities for sustainable development in Laos. The report estimated that 33 percent of Lao PDR’s natural capital is in undeveloped hydroelectric power and claimed that when this is developed incomes and total wealth will increase (World Bank Group 2010: 11). This logic belies a number of assumptions. First, that water’s best use is hydroelectricity and, implicitly, that undammed rivers or untapped “hydroelectric potential” are being underutilized. Second, that rents procured from the generation of hydroelectricity, as income, are fungible with the livelihood benefits Lao people currently use free-flowing rivers for, all of which are negatively impacted by dams (Figure 4). Third, that rents inevitably translate into government programs that offer quality-of-life improvements for the Lao people, when in fact such transfers are not guaranteed (Baird, Shoemaker, and Manorom 2015). The report demonstrates the classification of Laos’s resources into a green neoliberal framework by employing descriptions of forests and rivers in terms of a market economy and hydroelectric potential, ignoring the many non-monetized ways rivers and forests are used to support the livelihoods of people in Laos.

At the site of the Xayaburi Dam in 2012, Virapongh Viravong, vice minister of the Ministry of Energy and Mines and the de facto spokesperson for the Xayaburi Dam project, incorporated this green neoliberal logic on energy and sustainable hydropower to promote Xayaburi and its hydropower development plan:

Laos is a country blessed with large hydrological resources. Working always with the aim to protect these riches for the generations to come, we chose hydropower because we have large hydropower potential, it is clean, zero carbon emissions, and renewable. . . . Also note that hydropower contributes 33 percent to [the] natural capital of Lao PDR. Hydropower is traditionally supported by multinational institutions like the World Bank and the Asian Development Bank, for 40 years. Hydropower is sustainable if and when it is developed responsibly. (Xayaburi Hydropower Official Visit, Luang Prabang, Laos, July 16, 2012)

Here, the use of green neoliberal discourse justifies hydropower and demonstrates that the government is taking World Bank ideas, sometimes directly from reports, to justify its decisions. It also shows the government’s willingness to use its history of cooperation with the World Bank, and the World Bank’s support of hydropower, to rationalize its actions.

To legitimize hydropower as a poverty-alleviation and development tool, the Lao government has become increasingly dismissive of any knowledge set used to oppose hydropower,



FIGURE 4. Slow Boats on the Nam Ou River, Historically Used for Transport, Will Become Less Common with Planned Dam Construction

(Photo by Kathryn Olson).

describing such alternative knowledges as fundamentally opposed to the development of Laos as a whole. Two statements from senior environmental officials (both interviewed July 12, 2012) demonstrate how government officials conflate opposition to Xayaburi with a lack of concern about poverty and development. When asked about those who oppose the Xayaburi Dam, one responded: “They are worried about saving dolphins. I mean, we are working to address poverty—we don’t care about fish.” The other said, “If they are against dams they are against Laos developing. People who are always opposed to dams are not worth our time.”

These statements highlight the perception among environmental officials that opponents of Xayaburi are motivated by species protection and fisheries more than people, and their characterization of opposition to hydropower as tantamount to opposition to development. They also reinforce the naturalized link between dams and development, implying that you cannot be for one and against the other. A staff member for a prominent international NGO suggested that this false dichotomy has actually been mirrored by media coverage of the Xayaburi Dam and has obscured other factors, such as the role of rivers in people’s food security:

I think the cultural heritage of the river [hasn’t been talked about]. So many people whose lives have been closely connected to the river for generations, and how these dams will impact culture in the future, all of that hasn’t really been covered, nor has the rights of the ethnic minorities here, or how the thousands of resettled people within the reservoir sites will do. (Interview, June 25, 2012)

Simply protecting fish is viewed as disconnected from people's needs, obscuring more complex socio-natural interdependencies. The mentality of green neoliberalism requires a particular understanding of sustainable development as development which heeds the imperative of raising people out of poverty through macro-level economic growth generated by large-scale hydropower.

Connecting to Global Climate Change Discourses

Large hydropower is a very big part of the solution for Africa and South Asia and Southeast Asia. I fundamentally believe we have to be involved. The earlier move out of hydro was the wrong message. . . . That was then. This is now. We are back.

—RACHEL KYTE, VICE PRESIDENT, WORLD BANK GROUP, 2013

We are doing sustainable development! Hydropower is clean!

—INTERVIEW WITH SENIOR ENVIRONMENTAL OFFICIAL, JULY 12, 2012

In addition to the argument that hydropower is the only viable option for Laos' sustainable development, state actors have increasingly linked hydropower decisions to the broader global climate change discourse. This "sustainable hydropower" discourse matches the World Bank's policies of addressing global climate change with infrastructure projects in developing countries. Despite evidence against the efficacy of hydropower for both poverty alleviation and low-carbon energy production in the region, the bank is once again advocating large dams (Cooper 2010; Foran, Wang, and Kelley 2010; Schneider 2013). In a series of statements in the *Vientiane Times* in 2013, at the height of the public controversy over the Xayaburi Dam, a no-byline editorial laid out the government's argument connecting its hydropower development strategy to global climate change:

Let's remember that Laos is a small, least developed country which is responsible for very little in the way of pollution as its people are poor. However . . . the country is committing great responsibility to mitigating the worsening effects of climate change. . . . Laos is helping to preserve the planet, which has been largely polluted by the world's leading industrial countries for generations now.

Here, Laos is portrayed as a poor country willing to address the threat of global climate change, a threat for which it is not responsible due to low overall emissions as a result of poverty. The writer also adopts the planetary scale to justify its efforts, which obscures the inevitable socio-ecological impacts of hydropower at the local scale.

Continuing on, the editorial advocates green energy development at the regional scale:

Hydroelectricity is among the cleanest forms of energy, therefore producing and consuming this type of energy means the country is helping to preserve the environment. Moving away from polluting fossil fuel sources will contribute significantly to mitigating the growing problem of global warming and climate change—the world's most pressing issue of concern. Laos not only commits itself to consume only the cleanest forms of energy wherever possible, but with its plan to export the surplus hydroelectricity produced it is also helping other countries in the region to access clean energy and minimise their dependence on dirtier and heavily polluting forms of energy.

The moral, altruistic discourse asserts that Laos is developing hydropower to help neighboring countries in a socially and ecologically conscious way, but ignores the mixed regional opposition to Xayaburi. This quote also demonstrates how the government of Laos has adopted the hegemonic discourses on regional integration and green energy production promoted by the World Bank, ADB, and other influential development actors in the region (Cooper 2010).

Dam Reports: Producing Knowledge for Power

Technically, the engineers call it a transparent dam. A dam that can pass through the sediment. It's like having no dam.

—SENIOR ENVIRONMENTAL OFFICIAL, JULY 12, 2012

From the moment the government of Laos announced its intention to build a dam on the Mekong mainstream, expert studies of environmental impact became strategic artifacts of power reinforcement in the debate. The government's own environmental impact assessment—made public under requirements of the Procedures for Notification, Prior Consultation and Agreement (PNPCA) of the 1995 Mekong Agreement—had found minimal impacts to fisheries or sedimentation, but was strongly criticized for, among other things, limiting its assessment of downstream impacts to only 10 kilometers.

In response to concerns from riparian states, the MRC conducted its own strategic environmental assessment of mainstream Mekong dams and recommended more time and study and delaying dam construction for 10 years (Suhardiman, Giordano, and Molle 2015). The government of Laos then commissioned a Finnish engineering company to assess its original environmental impact assessment and ensure compliance with MRC design standards. This report met with major criticism by international NGOs, including the World Wildlife Fund, International Rivers, and the International Center for Environmental Management, which released assessments of the Lao government's assessment. Consequently, Laos hired a French dam developer, *Compagnie Nationale du Rhône*, to review the Finnish report. Meanwhile, amid this veritable assembly line of impact assessments, formal complaints from Cambodia and Vietnam, and protests in Thailand, construction of the dam at Xayaburi began (for a detailed timeline of the Xayaburi PNPCA process, see Geheb, West, and Matthews 2014).

Surrounded by uncertainty about whether it was fulfilling its consultation obligations to riparian states, the government routinely cited its involvement in the consultation process and its collaboration with the World Bank as evidence of its trustworthiness and empathic understanding of its neighbors' concerns.

We follow all of the World Bank guidelines, the MRC guidelines. We have very high standards for resettlement and for considering all of our hydropower projects. We are following all of them and all of the rules. Other countries have asked us to do more studies and to reconsider, and twice we have done it. (Interview with environmental official, July 11, 2012)

Just as it cited its history of working with the World Bank, the government also used its own commissioned experts to lend legitimacy to its decisions.

We have been working a lot with the World Bank. And we will always have the engineers. We hired a very expensive consulting firm to do a study. We have to trust them. We have to listen to them, they have experience with dams all over the world. . . . We have to trust them. For every hydropower project in Laos we retain independent consultants with international experience. (Interview with senior environmental official, July 12, 2012)

The government invokes the particular expertise of the World Bank and European engineers to legitimize its hydropower decisions. Not only expert reports but the experts themselves—who, it is emphasized, are international, expensive, independent, and knowledgeable—are all features of the government's discourse on hydropower. In order for the government to pursue its green neoliberal project, it must promote a rationality of scientific expertise, materially in the production of lengthy technical reports and symbolically in the association with international experts. One international NGO staff member based in Vientiane stated that the government's strategy of commissioning its own scientific studies was merely an attempt to use expert knowledge to legitimize its plans:

The reports . . . this is not a reading culture, so it's already a political maneuver to make a report that is 300 pages long. No one will read it. Absolutely not. The second step is to have people like Virapongh [Viravong, deputy director, Ministry of Energy and Mines] walking around waving it as independent, verifiable, proven knowledge. I don't think that any of these things have impact—they're all political games. Their value is not in the research, it's in the political mileage that they represent. (Interview, July 9, 2012)

In producing knowledge for power in Laos, state actors use particular forms of scientific expertise to legitimize their green neoliberal agenda. Collectively, this strategy allows the government to employ a particular technique of cooperation, whereby it commissions technical reports and states its concern for impacts, while quietly continuing to build dams. Geheb, West, and Matthews (2014) note that although the government has adjusted construction of the Xayaburi Dam in response to criticism from neighbors and civil society, it is still moving forward with construction of Xayaburi and another controversial dam on the Mekong mainstream in southern Laos, the Don Sahong (Mekong River Commission 2013). This practice of commissioning expert scientific studies and engaging diplomatically with its neighbors, while simultaneously breaking ground on the dam in question, is thus now being pursued by the government with other dams.

CONCLUSION

This paper investigates how the architecture of green neoliberalism, constructed through historical interaction with powerful global and regional actors, continues to productively shape hydropower and development in Laos. Using a green governmentality approach, we consider how the logic of global neoliberalism continues to circulate through the practices, ideas, and technologies of governance and development, though in unique ways due to the conditions presented by the authoritarian state.

Our findings suggest that specific discourses relating to development and sustainability are continuously invoked to frame the control of water resources via dam development in Laos. Through these discourses, the modernizing state, attuned to the challenge of global

climate change and committed to addressing poverty, emerges through the commodification of water resources. The forms of hydropower/knowledge identified here support characterization of the Lao state's neoliberalization through the enclosure of its natural resources and under the enduring influence of global green neoliberal rationality. Yet, the particular form of "state-sponsored enclosure" (Dwyer 2013) in Laos suggests that the state is simultaneously neoliberal and illiberal, as it adopts neoliberal rhetoric to justify, and obfuscate, its illiberal practices.

Through its development of hydropower the state, far from retrenching, has utilized green neoliberal logic to push its economic agenda while engaging with the demands of civil society. Facing specific concerns about fisheries and sedimentation from many corners—including regional and global civil society, and powerful donor states such as the United States—the state responded rhetorically, but also materially by optimizing the design of its proposed fish ladders (Geheb, West, and Matthews 2014). Moreover, it adeptly engaged with the MRC's prior notification and consultation requirement while quietly continuing construction of the Xayaburi Dam. Here, the state is nimble in its receptivity to specific environmental concerns and ability to engage with its international requirements, all the while enacting its preconceived construction projects. The modicum of participation demonstrated in the PNPCA process did not fundamentally alter the state's drive to sustain its development agenda. Further, in promoting particular forms of expertise, the possibilities for a democratic, transparent, sustainable development that incorporates multiple forms of knowledge and takes seriously the claims of civil society and affected communities remain elusive.

Our case supports scholarship suggesting that, in Southeast Asia, *actually existing neoliberalism* is often decidedly *illiberal* (Barney 2012a; Brenner and Theodore 2002; Nevins and Peluso 2008). Though we see in the case of Xayaburi elements of the green neoliberal project, the *illiberality* of the Lao government's actions in pushing its dam agenda forward suggests the attenuated influence of neoliberalism in an authoritarian context. The Xayaburi Dam project reveals that hydropower in Laos, though influenced by the global neoliberal project, is still ultimately implemented as state actors desire. Neoliberal discourse shapes the ways that states and their subjects conduct affairs, but the centralized state and local elites "rearticulate" neoliberal practices to fit the local context (Springer 2011).

What has emerged is the legalization of a process that simultaneously reinforces the influence of the Communist Party whilst opening capital to foreign investors in the name of sustainable development, poverty alleviation, and climate change mitigation. Although Laos is governed by powerful elites who shape the discursive and material processes of dam development, environmental governance processes there still reproduce global power relations through the logic of green neoliberalism (Lewis 2016; McMichael 2017). At a moment when global collaboration to address climate change requires the development of more environmentally and socially benign energy sources, the case of the Xayaburi Dam presents an opportunity to reconsider the rhetoric and the reality of sustainable development. Our research suggests that other sites in Southeast Asia merit close investigation of their neoliberal environmental claims. ■

REFERENCES

- Anon. 2016. "10 Reasons Why Climate Initiatives Should Not Include Large Hydropower Projects." Retrieved February 10, 2016 (<http://www.internationalrivers.org/node/9204>).
- Ansar, Atif, Bent Flyvbjerg, Alexander Budzier, and Daniel Lunn. 2014. "Should We Build More Large Dams? The Actual Costs of Hydropower Megaproject Development." *Energy Policy* 69:43–56.
- Baird, Ian G., and Philippe Le Billon. 2012. "Landscapes of Political Memories: War Legacies and Land Negotiations in Laos." *Political Geography* 31(5):290–300.
- Baird, Ian G., Bruce P. Shoemaker, and Kanokwan Manorom. 2015. "The People and Their River, the World Bank and Its Dam: Revisiting the Xe Bang Fai River in Laos: The People and Their River Revisited." *Development and Change* 46(5):1080–1105.
- Bakker, K. 2010. "The Limits of 'Neoliberal Natures': Debating Green Neoliberalism." *Progress in Human Geography* 34(6):715–35.
- Bakker, Karen. 1999. "The Politics of Hydropower: Developing the Mekong." *Political Geography* 18(2):209–32.
- Barney, Keith. 2012. "Locating 'Green Neoliberalism,' and Other Forms of Environmental Governance in Southeast Asia." *Kyoto University Southeast Asian Studies Newsletter* 66:25–28.
- Barney, Keith D. 2012. "Grounding Global Forest Economies: Resource Governance and Commodity Power in Rural Laos." Doctoral dissertation, York University, Toronto.
- BBC News. 2016. "Laos: Barack Obama Regrets 'Biggest Bombing in History.'" *BBC News*. Retrieved November 8, 2016 (<http://www.bbc.com/news/world-asia-37286520>).
- Braun, Yvonne. 2006. "Large Dams as Development: Restructuring Access to Natural Resources in Lesotho." Pp. 151–71 in *Globalization and the Environment*, edited by Andrew K. Jorgenson and Edward L. Kick. Leiden: Brill Press.
- Brenner, Neil, and Nik Theodore. 2002. "Cities and the Geographies of 'Actually Existing Neoliberalism.'" *Antipode* 34(3): 349–79.
- Castree, Noel. 2010. "Neoliberalism and the Biophysical Environment 1: What 'Neoliberalism' Is, and What Difference Nature Makes to It: Neoliberalism and the Biophysical Environment 1." *Geography Compass* 4(12):1725–33.
- Conca, Ken. 2006. *Governing Water: Contentious Transnational Politics and Global Institution Building*. Cambridge: MIT Press.
- Cooper, Rachel Victoria. 2010. "Promoting and Contesting Hydropower Development: Actors and Narratives in the Lower Mekong Basins' Hydropolitical Constellation." PhD Dissertation, University of Newcastle upon Tyne.
- Cornwall, Warren. 2016. "Hundreds of New Dams Could Mean Trouble for Our Climate." *Science | AAAS*, September 28. Retrieved February 8, 2017 (<http://www.sciencemag.org.proxy.bc.edu/news/2016/09/hundreds-new-dams-could-mean-trouble-our-climate>).
- Dakin, Brett. 2016. "Laotian Lessons." Retrieved November 8, 2016 (<https://www.foreignaffairs.com/articles/laos/2016-09-06/laotian-lessons>).
- Darier, Eric. 1999. *Discourses of the Environment*. Oxford: Blackwell.
- Dean, Michael. 1999. *Governmentality*. London: Sage.
- Devine, Jennifer. n.d. "Community Forest Concessionaires: Resisting Green Grabs and Producing Political Subjects in Guatemala." *Journal of Peasant Studies*. Retrieved October 31, 2016 (<http://www.tandfonline.com.proxy.bc.edu/doi/abs/10.1080/03066150.2016.1215305>).
- Dressler, Wolfram, Sango Mahanty, Jessica Clendenning, and Phuc Xuan To. 2014. "Rearticulating Governance through Carbon in the Lao PDR?" *Environment and Planning C: Government and Policy* 32:1–19.
- Dryzek, John. 2013. *The Politics of the Earth: Environmental Discourses*. New York: Oxford University Press.
- Dwyer, Michael B. 2013. "Building the Politics Machine: Tools for 'Resolving' the Global Land Grab: Building the Politics Machine." *Development and Change* 44(2):309–33.

- Ekers, Michael, and Alex Loftus. 2008. "The Power of Water: Developing Dialogues between Foucault and Gramsci." *Environment and Planning D: Society and Space* 26(4):698–718.
- Evans, Grant. 2002. *A Short History of Laos: The Land in Between*. Crows Nest, NSW: Allen & Unwin.
- Fearnside, Philip. 2015. "Tropical Hydropower in the Clean Development Mechanism: Brazil's Santo Antonio Dam as an Example of the Need for Change." *Climatic Change* 131:575–89.
- Foran, Tina, Timothy Wong, and Shawn Kelley. 2010. *Mekong Hydropower Development: A Review of Governance and Sustainability Challenges*. MPOWER. Retrieved November 23, 2015 (http://www.mpowernetwork.org/Knowledge_Bank/Key_Reports/Research_Reports/Mekong_Hydropower_Development.html).
- Foucault, Michel. 1980. *Power/Knowledge: Selected Interviews and Other Writings, 1972–1977*, edited by C. Gordon. New York: Pantheon Books.
- Foucault, Michel. 1991. "Governmentality." In *The Foucault Effect: Studies in Governmentality*, edited by G. Burchell, C. Gordon, and P. Miller. Chicago, IL: University of Chicago Press.
- de Freitas, Corin, Andrea J. Marston, and Karen Bakker. 2015. "Not-Quite-Neoliberal Natures in Latin America: An Introduction." *Geoforum* 64:239–45.
- Fuller, Thomas. 2011. "Decision Looms for Laos Dam, but Impact Is Unclear." *New York Times*, April 17.
- Gainsborough, Martin. 2010. "Present but Not Powerful: Neoliberalism, the State, and Development in Vietnam." *Globalizations* 7(4):475–88.
- Gareau, Brian J. 2008. "Dangerous Holes in Global Environmental Governance: The Roles of Neoliberal Discourse, Science, and California Agriculture in the Montreal Protocol." *Antipode* 40(1):102–30.
- Gareau, Brian J. 2012. "The Limited Influence of Global Civil Society: International Environmental Non-Governmental Organisations and the Methyl Bromide Controversy in the Montreal Protocol." *Environmental Politics* 21(1):88–107.
- Gareau, Brian. 2013. *From Precaution to Profit: Contemporary Challenges to Environmental Protection in the Montreal Protocol*. New Haven, CT: Yale University Press.
- Geheb, Kim, Niki West, and Nathaniel Matthews. 2014. "The Invisible Dam: Hydropower and Its Narration in the Lao People's Democratic Republic." Pp. 101–141 in *Hydropower Development in the Mekong Region: Political, Socio-Economic, and Environmental Perspectives*, edited by Nathaniel Matthews and Kim Geheb. New York: Routledge.
- Goldman, Michael. 2005. *Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization*. New Haven, CT: Yale University Press.
- Government of Laos. 2015. "Powering Progress." Retrieved November 30, 2015 (www.poweringprogress.org).
- Graecen, Chuenchom Sangarasri, and Chris Graecen. 2012. "Proposed Power Development Plan (PDP) 2012 and a Framework for Improving Accountability and Performance of Power Sector Planning." *Palang Thai*. Retrieved October 30, 2015 (<http://palangthai.org/en/policy>).
- Grumbine, Edward and Jianchu Xu. 2011. "Mekong Hydropower Development." *Science* 332(6026): 178–79.
- Grundy-Warr, Carl, and Ming-Li Yong. 2012. "Tangled Nets of Discourse and Turbines of Development: Lower Mekong Mainstream Dam Debates." *Third World Quarterly* 33(6):1037–58.
- Houghton, Graham, Phil Allmendinger, and Stijn Oosterlynck. 2013. "Spaces of Neoliberal Experimentation: Soft Spaces, Postpolitics, and Neoliberal Governmentality." *Environment and Planning A* 45(1):217–34.
- Heynen, Nik, et al., eds. 2007. *Neoliberal Environments: False Promises and Unnatural Consequences*. New York: Routledge.
- High, Holly, and Pierre Petit. 2013. "Introduction: The Study of the State in Laos." *Asian Studies Review* 37(4):417–32.

- Hirsch, Philip. 2010. "The Changing Political Dynamics of Dam Building on the Mekong." *Water Alternatives* 3(2):312–23.
- Kakonen, Mira, and Hana Kaisti. 2012. "The World Bank, Laos and Renewable Energy Revolution in the Making: Challenges in Alleviating Poverty and Mitigating Climate Change." *Forum for Development Studies* 39(2):159–84.
- Khagram, Sanjeev. 2004. *Dams and Development: Transnational Struggles for Water and Power*. Ithaca, NY: Cornell University Press.
- Lewis, Tammy. 2016. *Ecuador's Environmental Revolutions: Ecoimperialists, Ecodependents, and Ecoresisters*. Cambridge, MA: MIT Press.
- Luke, Timothy. 1999. "Environmentality as Green Governmentality." In *Discourses of the Environment*, edited by Eric Darier. Oxford: Blackwell.
- MacKinnon, Danny. 2000. "Managerialism, Governmentality and the State: A Neo-Foucauldian Approach to Local Economic Governance." *Political Geography* 19(3):293–314.
- Matthews, Nathaniel. 2012. "Water Grabbing in the Mekong Basin: An Analysis of the Winners and Losers of Thailand's Hydropower Development in Lao PDR." *Water Alternatives* 5(2):392–411.
- Matthews, Nathaniel, and Stew Motta. 2013. *China's Influence on Hydropower Development in the Lancang River and Lower Mekong River Basin*. CGIAR Challenge Program on Water and Food. Retrieved October 20, 2016 (https://wle-mekong.cgiar.org/download/state-of-knowledge/china-influence-hydropower-development/SoK4%20-%20Mekong%20Chinese%20influence%20_Eng.pdf).
- McCarthy, James, and Scott Prudham. 2004. "Neoliberal Nature and the Nature of Neoliberalism." *Geoforum* 35(3):275–83.
- McCully, Patrick. 2001. *Silenced Rivers: The Ecology and Politics of Large Dams*. London: Zed Books.
- McMichael, Philip. 2017. *Development and Social Change: A Global Perspective*. 6th ed. Los Angeles, CA: Sage.
- Mekong River Commission, ed. 2010. *State of the Basin Report 2010*. Vientiane: Mekong River Commission.
- Mekong River Commission. 2013. "Lao PDR Submits Notification on Don Sahong Hydropower Project» Mekong River Commission." Retrieved October 31, 2016 (<http://www.mrcmekong.org/news-and-events/news/lao-pdr-submits-notification-on-don-sahong-hydropower-project/>).
- Merme, Vincent, Rhodante Ahlers, and Joyeeta Gupta. 2014. "Private Equity, Public Affair: Hydro-power Financing in the Mekong Basin." *Global Environmental Change* 24:20–29.
- Middleton, Carl, Jelson Garcia, and Tina Foran. 2009. "Old and New Hydropower Players in the Mekong Region: Agendas and strategies." Pp. 23–54 in *Contested Waterscapes in the Mekong Region: Hydropower, Livelihoods and Governance*, edited by Francois Molle, Tina Foran, and Mira Kakonen. Oxfordshire: Earthscan.
- Middleton, Carl, Carl Grundy-Warr, and Ming Li Yong. 2013. "Neoliberalizing Hydropower in the Mekong Basin: The Political Economy of Partial Enclosure." *Journal of Social Sciences* 43(2):299–334.
- Middleton, Carl, Nathaniel Matthews, and Naho Mirumachi. 2014. "Whose Risky Business? Public-Private Partnerships (PPP), Build-Operate-Transfer (BOT) and Large Hydropower Dams in the Mekong Region." pp. 127–152 in *Hydropower Development in the Mekong Region: Political, Socio-economic and Environmental Perspectives*, edited by N. Matthews and K. Geheb. New York: Earthscan.
- Molle, Francois, Tira Foran, and Philippe Floch. 2009. *Introduction: Changing Waterscapes in the Mekong Region: Historical Background and Context*. London: Earthscan. Retrieved July 13, 2016 (https://www.researchgate.net/profile/Peter_Mollinga/publication/46485452_Hydraulic_Bureaucracies_and_the_Hydraulic_Mission_Flows_of_Water_Flows_of_Power/links/09e4150f5438663f45000000.pdf).
- Nevins, Joseph, and Peluso, Nancy, Eds. 2008. *Taking Southeast Asia to Market: Commodities, Nature and People in the Neoliberal Age*. Ithaca, NY: Cornell University Press.

- Oels, Angela. 2005. "Rendering Climate Change Governable: From Biopower to Advanced Liberal Government?" *Journal of Environmental Policy & Planning* 7(3):185–207.
- Pearse-Smith, Scott William David. 2012. "The Impact of Continued Mekong Basin Hydropower Development on Local Livelihoods." *Consilience: The Journal of Sustainable Development* 7(1):73–86.
- Porter, Ian, and Jayasankar Shivakumar. 2010. *Doing a Dam Better: The Lao People's Democratic Republic and the Story of Nam Theun 2*. Washington, DC: World Bank.
- Pukinskis, Ian, and Kim Geheb. 2012. "The Impacts of Dams on the Fisheries in the Mekong." State of Knowledge Series 1, Challenge Program on Water and Food, (<https://wle-mekong.cgiar.org/state-of-knowledge/>).
- Rigg, Jonathan. 2009. "A Particular Place? Laos and Its Incorporation into the Development Mainstream." *Environment and Planning A* 41(3):703–21.
- Roberts, David, and Jalel Sager. 2016. "Recharging Asia's Battery." *Foreign Affairs*. Retrieved November 8, 2016 (<https://www.foreignaffairs.com/articles/laos/2016-09-01/recharging-asia-s-battery>).
- Rutherford, S. 2007. "Green Governmentality: Insights and Opportunities in the Study of Nature's Rule." *Progress in Human Geography* 31(3):291–307.
- Schneider, Howard. 2013. "World Bank Turns to Hydropower to Square Development with Climate Change." *Washington Post*, May 8 (https://www.washingtonpost.com/business/economy/world-bank-turns-to-hydropower-to-square-development-with-climate-change/2013/05/08/b9d60332-b1bd-11e2-9a98-4be1688d7d84_story.html).
- Seki, Koki. 2009. "Green Neoliberalism, Ecogovernmentality, and Emergent Community: A Case of Coastal Resource Management in Palawan, the Philippines." *Philippine Studies* 57(4):543–78.
- Sending, Ole Jacob, and Iver B. Neumann. 2006. "Governance to Governmentality: Analyzing NGOs, States, and Power." *International Studies Quarterly* 50(3):651–72.
- Singh, Sarinda. 2014. "Developing Bureaucracies for Environmental Governance: State Authority and World Bank Conditionality in Laos." *Journal of Contemporary Asia* 44(2):322–41.
- Sneddon, Chris. 2012. "The 'Sineu of Development': Cold War Geopolitics, Technical Expertise, and Water Resource Development in Southeast Asia, 1954–1975." *Social Studies of Science* 42(4):564–90.
- Sneddon, Chris, and Coleen Fox. 2011. "The Cold War, the US Bureau of Reclamation, and the Technopolitics of River Basin Development, 1950–1970." *Political Geography* 30(8):450–60.
- Sneddon, Chris, and Coleen Fox. 2012. "Water, Geopolitics, and Economic Development in the Conceptualization of a Region." *Eurasian Geography and Economics* 53(1):143–60.
- So Nam, By. 2015. "Lower Mekong Fisheries Estimated to Be Worth around \$17 Billion a Year." *MRC Catch and Culture*, December, 4–6.
- Springer, Simon. 2011. "Articulated Neoliberalism: The Specificity of Patronage, Kleptocracy, and Violence in Cambodia's Neoliberalization." *Environment and Planning A* 43(11):2554–70.
- Stuart-Fox, Martin. 1997. *A History of Laos*. Cambridge: Cambridge University Press.
- Stuart-Fox, Martin. 2006. "The Political Culture of Corruption in the Lao PDR." *Asian Studies Review* 30(1):59–75.
- Suhardiman, Diana, and Mark Giordano. 2014. "Legal Plurality: An Analysis of Power Interplay in Mekong Hydropower." *Annals of the Association of American Geographers* 104(5):973–88.
- Suhardiman, Diana, Mark Giordano, and François Molle. 2015. "Between Interests and Worldviews: The Narrow Path of the Mekong River Commission." *Environment and Planning C: Government and Policy* 33(1):199–217.
- Tilt, Bryan, Yvonne Braun, and Daming He. 2009. "Social Impacts of Large Dam Projects: A Comparison of International Case Studies and Implications for Best Practice." *Journal of Environmental Management* 90:S249–57.
- Transparency International. 2015. "Corruption Perceptions Index 2014: Results." Retrieved October 30, 2015 (<http://www.transparency.org/cpi2014/results>).

- UNESCO. 2015. "UNESCO Science Report." *UNESCO*. Retrieved October 31, 2016 (https://en.unesco.org/unesco_science_report).
- Urban, Frauke, Johan Nordensvärd, Deepika Khatri, and Yu Wang. 2013. "An Analysis of China's Investment in the Hydropower Sector in the Greater Mekong Sub-Region." *Environment, Development and Sustainability* 15(2):301–24.
- Varman, Rohit, Per Skalen, and Russell W. Belk. 2012. "Conflicts at the Bottom of the Pyramid: Profitability, Poverty Alleviation, and Neoliberal Governmentality." *Journal of Public Policy & Marketing* 31(1):19–35.
- Watts, Michael. 2002. "Green Capitalism, Green Governmentality." *American Behavioral Scientist* 45(9):1313.
- Watts, Michael. 2003. "Development and Governmentality." *Singapore Journal of Tropical Geography* 24(1):6–34.
- White, Damian, Alan Rudy, and Brian Gareau. 2015. *Environments, Natures and Social Theory: Towards a Critical Hybridity*. London: Palgrave Macmillan.
- Winemiller, K. O., et al. 2016. "Balancing Hydropower and Biodiversity in the Amazon, Congo, and Mekong." *Science* 351(6269):128–129.
- World Bank Group. 2010. *Lao PDR Development Report 2010. Natural Resource Management for Sustainable Development*. World Bank. Retrieved November 23, 2015 (<http://www.worldbank.org/en/news/feature/2011/03/27/sustainable-natural-resource-development-key-for-lao-pdrs-future>).
- World Commission on Dams, ed. 2000. *Dams and Development: A New Framework for Decision-Making*. London: Earthscan.
- Ziv, Guy, Eric Baran, So Nam, Ignacio Rodriguez-Iturbe, and Simon Levin. 2012. "Trading-Off Fish Biodiversity, Food Security and Hydropower in the Mekong River Basin." *Proceedings of the National Academy of Sciences* 109(15):5609–14.

NOTES

The authors would like to thank two anonymous reviewers and the Boston College Environmental Sociology Working Group, funded by the Boston College Institute for the Liberal Arts, for valuable feedback. This research was supported in part by fellowships from the Tufts University Water: Systems, Science and Society Program and the Boston College Department of Sociology.

1. Though Thailand's actual electricity demand is contested (Graecen and Graecen 2012).
2. Lao civil society is extremely constrained, even more so since the disappearance of Sombath Somphone, distinguished director of a Lao NGO, in 2013.
3. The U.S. began training non-communist forces in Laos in the early 1960s, in part to disrupt the Ho Chi Minh Trail, which supplied communist troops in Southern Vietnam.
4. Indeed, Sneddon (2012: 582) argues that the current hydroelectric schemes in Laos "rely on the same vision of the Mekong basin that Pa Mong [the Bureau's 'poster' project] helped produce—a developmental vision of water control that has proved remarkably resilient in the face of complex geopolitical change in the Mekong region."
5. See Rigg (2009: 705) for a table detailing these reforms and their similarities to Washington Consensus reforms.
6. China's influence in the region cannot be expanded on here, but is substantial. China is currently involved in at least 280 hydropower projects in Southeast Asia (Urban et al. 2013)
7. According to Transparency International, Laos is ranked 123 out of 176 countries on its corruption perceptions index, where 1 indicates the least corruption (<http://www.transparency.org/country/LAO>).
8. According to the government's website, the dam will be online in 2019.