

Consider the Dam:
Hydropower, Discourse, and Politics in Laos

A thesis

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Abstract

The recently begun Xayaburi dam project in Laos has demonstrated the uncertainty and disagreement about dams and development in the Mekong Region. Despite concerns that the environmental and social costs of hydropower far exceed the benefits, the government of Laos has produced an explicit economic development policy with hydropower at its center. The Xayaburi dam project has spurred widespread debate about how to balance economic development with ecological imperatives in an economically and politically diverse region. This thesis uses discourse analysis to identify the dominant storylines within the Xayaburi dam debate as a window into the social processes that influence hydropower decision-making in Laos. Analysis of the major storylines reveals the ways in which certain ideas and concepts have taken hold and continue to influence hydropower development in Laos. The thesis concludes with a discussion of potential areas where the discourse could be shifted to more meaningfully address the motivation for building large dams.

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Introduction

The Mekong River is one of the longest and most ecologically diverse rivers in the world. The countries of the Mekong River Basin are currently experiencing rapid economic growth, with a resultant increase in electricity demand. This has contributed to a renewed interest in hydropower development in the basin, particularly in Laos. Hydropower development, however, remains controversial, as many argue that its environmental and social costs outweigh its economic benefits (Pukinskis & Geheb, 2012). Nevertheless, the Government of Laos has proposed extensive hydropower development within its borders and put hydropower at the center of its economic development strategy (Government of Laos, 2012).

The recently begun Xayaburi hydropower project on the Lower Mekong River in Northern Laos has demonstrated the uncertainty and disagreement in Southeast Asia about hydropower development. The dam has spurred widespread debate about how best to govern a transboundary river in a politically and economically diverse region. The debate about Xayaburi and hydropower in the Lower Mekong Basin exemplifies the profound challenge of many environmental conflicts—national sovereignty versus transboundary impacts, conflict between species protection and development, values clashes between environmental groups focusing on species survival and government representatives yearning for economic growth, scientific uncertainty about future impacts, and questions of the meaning of sustainable development. This thesis examines the Xayaburi debate in

detail, highlights the major storylines that drive it, explores the underlying motivation and conceptual frames of the dominant actors, and situates the debate within the broader discourse on hydropower development in the Mekong Region.

Background: Laos and the Mekong River Basin

The Mekong River flows from its source in the Tibetan Himalayas of China 4,600 kilometers to the South China Sea. On the way, it briefly flows through Myanmar before continuing through the Lao People's Democratic Republic (Lao PDR), Thailand, Cambodia, and finally Vietnam. The source of the Mekong is on a high mountainous plateau, but the river soon flows through tropical forests and densely settled agricultural lowlands before reaching the sea at the Mekong Delta in Vietnam. China has developed hydropower infrastructure along the Upper Mekong River, with 17-19 projects planned or in operation (Grumbine et al., 2012). But, due to a number of factors, including geopolitical conflict, the Lower Mekong Basin has not been developed extensively for hydropower and remains undammed (Molle, et al., 2009; Sneddon & Fox, 2006). The Lower Mekong River is currently one of the world's longest stretches of undammed river. It is also a uniquely dynamic river. Every summer, the Mekong River swells with monsoonal overflow and forces a tributary in Cambodia, the Tonle Sap River, to reverse course, filling a lake the size of the state of Connecticut and supporting seasonal aquatic migration throughout the basin. Due in part to this seasonal pulse, the ecosystems of the Lower Mekong Basin support

the most productive inland fishery in the world. An estimated 2.5 million tons of fish and other aquatic animals are caught each year, with aquaculture producing roughly 2 million tons more (Pukunskis & Geheb, 2012).

The Mekong Basin is also a place of great biodiversity. Per hectare, the Mekong River is the most biologically diverse river in the world and is second only to the Amazon in total biodiversity. It is estimated that the Mekong River supports more than 850 species of fish, and new species continue to be discovered (Pukunskis & Geheb, 2012).

The Mekong River Basin encompasses a watershed of 800,000 km² and is home to roughly 65 million people. Two-thirds of the population live in rural areas and practice subsistence agriculture and fishing to support their livelihoods. Agriculture, fishing and forestry employ 85% of the people in the basin at a subsistence level (Kirby et al., 2010). The Mekong River Commission (MRC) estimates that two-thirds of the Basin population—40 million rural people—engage in the wild capture of fish in the Basin. The poor are particularly reliant on the fishery for their livelihoods. Fish is the cheapest source of animal protein and the fishery contributes to regional livelihoods founded predominantly on subsistence agriculture. The Mekong River supports astonishing biological and cultural diversity, and is essential to the food security of the region.

The heart of the Mekong River flows through the country of Laos. With a population of nearly 6.7 million people (CIA, 2013), Laos is one of the poorest countries in Southeast Asia. It has been designated a Least Developed Country (LDC) by the United Nations, which describes LDCs in the following way:

Their low level of socio-economic development is characterized by weak human and institutional capacities, low and unequally distributed income and scarcity of domestic financial resources. They often suffer from governance crisis, political instability and, in some cases, internal and external conflicts. Their largely agrarian economies are affected by a vicious cycle of low productivity and low investment. (United Nations)

Laos is one of the few remaining single-party Communist states, with strong central control placed on natural resource development and the media. Since the 1980s, the government has slowly shifted toward a market-based economy in order to gain access to international aid, a move that recently culminated in its acceptance into the World Trade Organization (Reuters, 2012). Though increasingly open to foreign investment, recent government backlash against dissent in Laos—including the disappearance of one prominent Lao citizen and the expulsion of the director of Helvetas, an assertive international NGO—has led many to wonder whether Laos has liberalized economically, but without a parallel shift in its political and social transparency (Fuller, 2013). Laos is a landlocked nation with significant natural resources, including water, and the government has declared its goal to become “the battery of Southeast Asia” (Fuller, 2011).

Hydropower and Development in the Mekong

Nearly half of the world’s rivers have been obstructed by dams.

Worldwide, over 45,000 large dams have been built (WWF, 2012). By 2000, according to the World Commission on Dams, 19 percent of the world’s electricity supply was generated from hydropower. But at a high cost: over 40 million people had been displaced due to dam construction. This estimate does

not include the unprecedented displacement of millions of people due to the construction of the Three Gorges Dam in China (Benjamin, 2007). After convening an eight-year, in-depth analysis of dams in conjunction with technical experts, government representatives, people affected by dams, hydropower industry representatives, and civil society representatives, the World Commission on Dams concluded in 2000 that, although hydropower does create benefits, “in too many cases an unacceptable and often unnecessary price has been paid to secure those benefits especially in social and environmental terms, by people displaced, by communities downstream, by taxpayers and by the natural environment” (WCD, 2000, xxviii).

Though hydropower has been considered for the mainstream of the Mekong since the 1950s, geopolitical conflict, lack of financing and other factors have left the Lower Mekong River undammed (Matthews, 2012). In 2006, the World Bank and the Asian Development Bank estimated that only 10% of the Mekong’s hydropower potential was being tapped (Matthews, 2012). This influential report encouraged a conception of the water in the Mekong as a resource for hydropower, while it marginalized notions of multiple uses or socio-ecological resilience (Matthews, 2012).

Estimates of the costs and benefits of hydropower development in the Lower Mekong are controversial and influenced by economic assumptions. The MRC’s Basin Development Plan (MRC, 2010) estimated a cumulative net economic benefit of \$33.4 billion over twenty years. The independent Strategic Environmental Assessment commissioned by the MRC following the Government

of Laos' notification of the Xayaburi hydropower project found that dam projects on the Lower Mekong mainstream would represent a “global loss” of biodiversity and cause an estimated fishery loss worth \$500 million/year. In an economic analysis of the assumptions underlying the Basin Development Plan, Costanza et al. (2011) included impacts on wetlands and fisheries and found that the worst case scenario if all planned dams are built in the Lower Mekong Basin would be a loss of \$274 billion in ecosystem services (Costanza et al., 2011).

Though most analyses of the proposed hydropower scheme in the Lower Mekong Basin have focused on mainstream dams, Ziv et al. (2012) found that the proposed 78 dams on Mekong tributaries would produce less energy and have greater negative impacts on productivity and biodiversity than the 6 proposed mainstream dams (Ziv et al., 2012). Thus, while the estimated environmental impacts of hydropower development on the Lower Mekong vary according to assumptions about the values of environmental services and mainstream versus tributary, there is scientific consensus that the cumulative effects of either mainstream or tributary dam development would have significant adverse impacts on the environment and on the livelihoods of the millions of people who depend on the river (Pukinskis & Geheb, 2012).

Overview: The Xayaburi Dam Debate

The Basin is facing great development pressure, and hydropower is an increasingly favored method of electricity generation (Grumbine et al., 2012).

Hydropower has detrimental ecological impacts, as it interrupts natural flood and sedimentation cycles and impedes fish migration. (Baran & Myschowoda, 2009). River damming is an ecological intervention so dramatic that it creates entirely new ecosystems (Agostinho et al., 2008). Nevertheless, the Government of Laos has proposed extensive hydropower development within its borders and put hydropower at the center of its economic development strategy (Government of Laos, 2012b).

In September 2010, Laos informed the Mekong River Commission—the intergovernmental organization created in 1995 to coordinate water resources research and development in the region—of its plan to build 78 dams on the Mekong and its tributaries, beginning with a large dam in Xayaburi province. All Mekong Region countries are required to inform their neighbors of planned construction on the mainstream Mekong under the Prior Notification requirement of the Mekong River Agreement of 1995, a framework for cooperation among Cambodia, Laos, Thailand, and Vietnam for the sustainable development of the Mekong River Basin to be facilitated by the Mekong River Commission. Upon notification, the Mekong River Commission called for a project delay pending further environmental studies in December of 2011, as part of the consultation requirement for proposed development on the mainstream. Laos agreed, but reports from a Thai construction company in May and photos leaked to the press in June by the NGO International Rivers confirmed that construction was underway. Despite strong opposition from riparian states, NGOs, and donors such as the United States and Australia, Laos officially broke ground at the site in

November, 2012. Though Xayaburi is only one of 78 planned dams in Laos, it is viewed as the harbinger of water resources development in the region.

Neighboring Thailand stands to benefit from the dam, despite opposition from environmentalists within the country. The majority of the hydroelectricity produced at Xayaburi will be sold to Thailand, per a purchase agreement between EGAT, 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 (International Rivers, 2013).

Opponents contend that the ecological risks of hydropower and the impacts on the livelihoods of 65 million people in the basin far outweigh the economic gains of hydropower development. Laos contends that its independent environmental impact statements and incorporation of new fish ladder technologies will create a "transparent" dam with no ecological impact (Government of Laos, 2012b). As one of the poorest countries in the world, Laos insists that it needs hydropower to lift its citizens out of poverty and appears willing to move forward on its hydropower development plans despite regional opposition.

Methodology and Research Questions

Discourse analysis is commonly used to consider how environmental policymaking is influenced by the systematic interpretation, framing, and shaping of particular environmental “problems.” Though not an environmental problem in the way that acid rain or climate change are environmental problems ripe for discourse analysis (Hajer, 1995; Adger et al., 2001), hydropower planning processes embody many of the peculiarities of contemporary environmental problems, which are a complex interplay of social, natural, scientific, and technological processes. Hajer (1995) describes certain issues in environmental policymaking as emblematic because they “dominate the perception of the ecological dilemma in a specific period” and they are “...the issues in terms of which people understand the larger whole of the environmental condition” (Hajer, 1995, p. 20). For Hajer, the purpose of environmental discourse is to “illuminate which questions about social developments and which social expectations can be discussed meaningfully in the context of these emblems” (p. 20). Here, I consider Xayaburi as an emblematic issue because of its prominence at the national, regional, and international scales and because of the common perception that the Xayaburi dam represents a new era of hydropower development, and development more generally, in Laos. This thesis builds on work examining

hydropower discourses in the Mekong Region by proposing dominant storylines (Hajer, 1995) in the Xayaburi debate.

Though much environmental discourse analysis emphasizes the deliberative quality of environmental policymaking and would seem to be most relevant in democracies where open, public debate of issues is common, this thesis builds on prior work demonstrating the relevance of a discourse approach to the Mekong Region. Though Laos is an authoritarian state where freedom of speech is frequently repressed, it is influenced greatly by multilateral and bilateral international donors, including the United States, who value democratic, deliberative processes. These donors wield great influence over the Government of Laos, not least through funding of the Mekong River Commission and specific development projects, as well as the provisions for notification and consultation within the 1995 Mekong Agreement. Thus, despite being an authoritarian state, Laos is still influenced by the ideals and interests of the international community and is therefore a relevant site for discourse analysis.

Discourse analysis is a tool for analyzing how competing approaches to environmental issues and contests over meaning impact environmental policymaking. Discourses are “a shared way of apprehending the world” (Dryzek, 2005, p. 8) comprising concepts, ideas, biases, language and other meaning-making constructs and phenomena. Discourses are often distilled into succinct “storylines” (Hajer, 1995) that condense complex narratives into simplistic statements that can become commonly used in certain contexts.

In order to better understand the role of discourse in the Xayaburi debate, this thesis will explore the following research question: What are the dominant Xayaburi storylines and how do they frame problems and solutions regarding hydropower in the Mekong Region? To address this question, I conducted 15 semi-structured interviews with experts and key informants in Southeast Asia in June and July of 2012. Interviewees were selected using the snowball sampling technique and through extensive preliminary research into the major actors influencing and researching the Xayaburi debate. In addition, I attended the first official visit to the Xayaburi site with various NGO, IGO, and high-level international actors. The interviews were only nominally structured, to allow for descriptive answers and exploration as was appropriate and possible within each interview. 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.

In addition to interviews, I analyzed key documents and websites of the major actors, as well as a sampling of international media coverage. By using discourse analysis of interviews and select public documents of the major actors, this thesis situates the Xayaburi debate in relation to the broader hydropower and development discourses in the Mekong Basin.

Literature Review

Conceptual Underpinnings of Environmental Discourse Analysis

The conceptual framework for this thesis is that environmental policy and planning are situated within broader discursive processes that both influence and are influenced by environmental policy outcomes. A discourse is a “specific ensemble of ideas, concepts, categorizations that are produced, reproduced, and transformed in a particular set of practices through which meaning is given to physical and social realities” (Hajer, 1995, 44). Another definition comes from Dryzek (2005), who defines discourse as “a shared way of apprehending the world” (9). Discourses “construct meanings and relationships, helping to define common sense and legitimate knowledge” (Dryzek, 2005, 9). Discourses may comprise language, texts, and any communicative interactions (Sharp & Richardson, 2001). They produce, reproduce, and transform meaning and influence action and thought (Adger et al., 2001, 683).

The analysis of discourse has its roots in social constructivism, a sociological approach that takes a critical stance toward knowledge and approaches it as a social process. Social constructivist research emphasizes the social, cultural, and historical context of research subjects and the connection between knowledge and action (Burr, 1995, as discussed in Sharp & Richardson, 2001, p. 194). Though there are epistemological differences in what constitutes discourse analysis, Feindt & Oels (2005) highlight areas of convergence, including: 1) interest in the role of language, 2) skepticism of rationality and

regard for knowledge as “contingent and principally contestable,” 3) understanding of the reciprocal relationship between language/knowledge and power, and 4) understanding of practices as “constitutive of power relations and knowledge systems.” (Feindt & Oels, 2005, p. 163)

In practice, discourse analysis is a “way to illuminate how certain definitions and interpretations of problems and solutions gain influence not just through linguistic practices but also by being embedded in power/knowledge relations which form a social framework through which ideas are converted into political realities” (Tellman, 2012, 735). Discourse analysis and policy studies can be linked to Stone’s (1998) study of narratives and logic within the American policy arena and the work of Fischer and Forester (1993), describing policymaking as predominantly a discursive struggle over defining problems. Hajer (1995) describes policymaking as “the creation of problems,” in that problems must be conceptualized in a way that facilitates feasible institutional solutions. “Hence policies are not only devised to solve problems, problems also have to be devised to be able to create policies” (Hajer, 1995, 15). As Sharp & Richardson note, a discourse approach is useful in policy and planning as a framework for investigating the ‘messy and complex’ conflicts over concepts, their meaning, and their implementation (Sharp & Richardson, 2001).

Like all discourse analysis, environmental discourse analysis seeks to investigate the interconnections among knowledge, power, and language within the policy arena. Environmental discourse analysis starts from an understanding that environmental policies--like any policies--are significantly shaped by values,

beliefs, and power in addition to science and environmental realities. As Hajer (1995) writes, environmental conflicts are not conflicts over “a predefined unequivocal problem with competing actors pro and con, but...a complex and continuous struggle over the definition and the meaning of the environmental problem itself” (Hajer, 1995, 14).

Feindt & Oels (2005) highlight several challenges within the field of environmental policy and the ways in which discourse analysis offers to meet these challenges. The first challenge is that environmental problems are socially constructed. “Environmental problems are not self-evident, they imply complex and systemic interdependencies, they often build up over long time intervals and large spatial areas” (Feindt & Oels, 2005, 162). Though environmental problems may be self-evident at the local level, “Articulating environmental problems beyond local evidence of, for example, degradation of lakes, soil, groundwater, forests, etc., requires conceptual frameworks and analytical capacities” (Feindt & Oels, 2005, 162). They note that being socially constructed does not mean that environmental problems are not physical realities, but rather that events are rendered governable through interpretation and contestation, not because they are widely understood as problematic.

Because environmental problems are not self-evident, definition of something as an “environmental problem” influences its management and governance. “Basic concepts, such as ‘nature’, ‘progress’ or ‘sustainability’ are contested” and expert judgments are woven into disputes and strategies (Feindt & Oels, 2005, 162). This discourse around basic concepts and expert knowledge is

influenced by institutions, history, and practices. The interconnectedness of action, structure, and knowledge contributes legitimacy and bias to environmental policy. "...it is also the interconnectedness of knowledge with practices, institutional capacities and technologies that renders difficult the intelligence and articulation of society-nature interactions or the acceptance of environmental discourse" (Feindt & Oels, 2005, 163).

Approaches to Discourse Analysis: Foucault and Habermas

There are two primary approaches to environmental discourse analysis, generally categorized as Foucauldian and non-Foucauldian. Non-Foucauldian discourse analysis can be linked to Habermas' theory of communicative action, wherein communication is a vehicle for social action. This approach emphasizes language and textual analysis with a distinct normative goal of optimizing communication to effect social change (Sharp & Richardson, 2001, 196). Non-Foucauldian discourse analysis is interested primarily in language and its influence on environmental policy processes and outcomes, with an emphasis on power analysis.

Foucauldian approaches stem from the work of French sociologist Michel Foucault (1979; 1980; 1984). Foucault conceived of discourse more broadly than mere language, emphasizing the relationship between knowledge and power (Foucault, 1980). He did not emphasize normative goals of communication but promoted systematic inquiry into the active structuring of knowledge, power, and thought. Feindt & Oels (2005) highlight the characteristics of Foucault's approach that inform environmental discourse analysis. First, discourse both reflects and

produces reality. “For Foucault, a discourse is constitutive of ‘reality’ in that it physically shapes reality. A discourse constitutes specific ways of being engaged with the world and of being related to it. A discourse establishes what is ‘true’ based on socially accepted modes of knowledge production” (Feindt & Oels, 2005, 164). Because discourse produces reality, analysis of actors and their strategies yields insight into the systems of power and the structured practices governing interaction, of which actors may or may not be aware. Thus Foucault’s interest in the study of subjectivity, power, and governance are also relevant for environmental policy.

Though there are theoretical distinctions between the Habermasian interest in argumentation and communicative action and the Foucauldian interest in governmentality and interpretation, in general all environmental discourse analysis starts from an understanding that environmental outcomes are shaped by values, beliefs, and power in addition to science and environmental realities. Discourse analysis is a tool for analyzing how competing approaches to environmental issues and contests over meaning not only impact environmental policymaking but are, in many ways, the practice of environmental policymaking itself.

Early Environmental Discourse

Application of environmental discourse analysis has been as varied as the preceding discussion on complementary definitions of discourse would suggest, as the term has been applied broadly to environmental problems. Perhaps one of the earliest and most influential uses of discourse analysis of environmental

problems was Maarten Hajer's *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process* (1995). Hajer traced shifts in environmental policy discourses over two decades in Great Britain and The Netherlands, with a specific focus on acid rain debates. His analysis demonstrated how more radical environmental discourses were systematically subsumed by a broader, mainstream 'ecological modernization' discourse. This discourse of ecological modernization was characterized by three notable features. First, that environmental problems can be addressed within existing political, economic, and social institutions, counter to more radical environmental discourses repudiating current institutions. Second, under the ecological modernization discourse, environmental protection is framed as a collective problem and a positive-sum game that can be adequately addressed through the appropriate management response. Third, central to the ecological modernization discourse is that economic growth and ecological health are not mutually exclusive, and that 'pollution prevention pays' (Hajer, 2005, 26).

Hajer's analysis is informed by Foucauldian concepts of discourse but diverged from it in two notable ways (Feindt & Oels, 2005, 166). Whereas Foucault did not focus on specific actors and their movements, Hajer's analysis included discussion of how different actors position themselves within certain discourses and manipulate language vis-à-vis each other. For Hajer, actors who form discourse coalitions share story lines, which align actors, actions, and interpretations of reality. Hajer also takes a normative approach to language and policymaking, emphasizing democratic public policy deliberation more similar to

Habermas. His analysis was the first one to apply sociological discourse analysis techniques to modern environmental policy, igniting academic interest in using discourse analysis for better understanding environmental policy processes.

Since Hajer's earliest work, environmental discourse has become a common approach within studies of environmental policy and planning. Among these, there has been substantial discourse analysis of climate policy. Silje Tellmann (2012) analyzed Norwegian climate discourses from 1989-2008 to consider how influential knowledge-based discourses were to climate policy outcomes in Norway. Tellmann traces the evolution of the way the climate problem and solutions were characterized from behavioral (tax solution), economic (quota solution) and finally to technological (engineering solution) and concludes that early in the climate policy formulation process in Norway, discourse was influential as actors influenced the definition of problems and the breadth of solutions. However, Tellmann finds discourse less influential in the policy implementation phase than in the problem formulation phase.

Classifying environmental discourses

Strategies for assessing and classifying environmental discourses vary widely. Adger et al. (2001) analyzed global environmental discourses related to climate change, deforestation, biodiversity, and desertification according to messages, narrative structure, actors utilizing and influencing the discourses, and policy prescriptions (Adger et al., 2001, 684). They found that the discourse related to each environmental issue could be further categorized into either a Global Environmental Management discourse or a Populist discourse. In their

analysis, each environmental issue is approached discursively through a managerial lens, which prescribes feasible institutional, market, and technological solutions usually at the state or donor scale-or a populist lens, which prescribes more localized, contextual solutions and demonstrates skepticism of global capitalism and neo-liberal values and policies (701-702). Adger et al. use these classifications to illuminate the discrepancy between ecological complexity and discursive simplifications and emphasize that, in all cases, "...adopting the language and rhetoric of Global Environmental Management constrains the solutions proposed for these issues" (Adger et al., 2001, 709).

Dryzek (2005) put forth slightly different criteria for classifying the most prevalent global environmental discourses. He first positions environmental discourses within the broader discourse of industrialism, and assesses to what degree specific discourses depart from it and offer either 'prosaic' or 'imaginative' solutions (Dryzek, 2005, 15), before classifying them into the following dominant environmental discourses: environmental problem solving, survivalism, sustainability, and green radicalism. Dryzek classifies discourses according to the following elements: basic entities whose existence is recognized or constructed; assumptions about natural relationships; agents and their motives; and key metaphors and rhetorical devices (Dryzek, 2005, 18). Basic entities recognized or constructed refers to how the elements of the environment and human responses are conceived of and used within the discourse. For example, some discourses use constructs related to human and non-human life and ecological knowledge related to finite resource stocks and interconnectedness of

biological and physical systems, while others use constructs about technology, markets, and institutions. Assumptions about natural relationships include whether human or non-human life is given more or equal value and whether nature is viewed as passive and external to humanity or dynamic and inextricably connected to humanity. Agents and their key motives examines people and institutions contributing to, shaping, and relating to the discourse, while key metaphors and rhetorical devices examines unifying ideas informing a discourse that build on ideas and values related to the earth, humanity, institutions, systems, markets, problems, and solutions (Dryzek, 2005,18).

In addition to the analyses of global environmental discourses posited by Adger et al. (2001) and Dryzek (2005), others have looked at individual cases and offered case-specific categories for analyzing discourse. These differ according to their emphasis on values, narrative quality (story with beginning, middle, and end), actors and strategies, and policy outcomes. Building on Dryzek's ontology of environmental discourses, Tellman (2012) offers a variation emphasizing problem development and knowledge-production. He classifies Norwegian climate discourse according to: how the problem is defined; how it is framed and linked to other policy areas; strategies and instruments proposed as solutions; key terms used in arguments justifying those solutions; and the disciplinary knowledge base drawn on in these arguments (Tellman, 2012, 736). Jessup (2010) considered wind energy conflict in Australia and the United Kingdom by examining discourses via an analysis focusing on the central environmental values expressed by key actors, the dominant storylines that unfold from these values,

and the coalitions that have developed around the wind energy issue. In the Mekong, Li Yong and Grundy-Warr (2012) analyze dominant anti-dam arguments and strategies according to beliefs about what rivers are for and what they provide, values related to the goals and definitions of development, and geo-economic orientation (Li Yong and Grundy-Warr, 2012, 1038).

Discourse analysis in the Mekong

Studies of environmental politics within Laos have used discourse analysis to reveal the power dynamics embedded in dominant lending and policymaking institutions in the region. Kakonen & Haisti (2012) used expert interviews and textual analysis to trace the emergence of a win-win energy development narrative within the World Bank regarding its lending to Laos. As the largest single source of funds for energy projects in developing countries and a significant producer of knowledge on development in Southeast Asia (Kakonen & Haisti, 2012, p. 3) the World Bank wields significant power and influence in the region. Kakonen & Haisti trace the evolution of the hydropower and renewable energy discourse within the World Bank over the last three decades.

Following criticism from civil society organizations about investments in dirty energy, the World Bank declared a 'revolution' (Kakonen & Haisti, p. 7) in energy financing in 2004 committed to funding renewable energy projects to mitigate climate change. Concurrently, funding for large-scale hydropower projects dipped in the 1990s and early 2000s due to substantial civil society opposition to large-scale hydropower projects and the release of the World

Commission on Dams report in 2000 decrying the many social and environmental problems of large hydropower projects.

As Kakonen & Haisti document, in 1999, no hydropower projects were funded by the bank, but by 2003 they began appearing in Bank energy proposals. “It seems that the stronger the climate change agenda has become the more large scale hydropower has been presented as the most affordable and thus pro-poor source of renewable energy” (Kakonen & Haisti, 2012, 9). They go on to demonstrate how hydropower has since been systematically portrayed as an optimal clean energy source despite social and environmental concerns. Through interviews, they support their analysis with quotes from officials demonstrating the logic of pursuing hydropower to provide “renewable, affordable and sustainable electricity to sustain economic growth and poverty reduction” despite evidence that the hydropower/electricity access/poverty reduction causal chain is far from established. Kakonen & Haisti demonstrate the utility of discourse analysis for unpacking how policy imperatives (in this case, to mitigate climate change) are turned into arguments (hydropower mitigates climate change and leads to electricity access for the poor) that influence funding and development policy (hydropower is sustainable and pro-poor).

In another study employing discourse analysis and Foucauldian inquiry of knowledge and power, Whittington (2012) examines a brief collaboration between an activist environmental NGO, International Rivers, and the Theun-Hinboun Hydropower Company in Laos. Whittington considers the ways in which actors within these institutions produce knowledge. In particular, he

analyzes why some knowledge related to sustainability and hydropower in Laos is legitimized. He finds this contestation over hydropower expertise and knowledge structurally replicated in the Theun-Hinboun management, in that environmental mitigation and communication become mired in the systematic denial of scientific authority. As Whittington notes, in the case of Theun-Hinboun, this led ultimately to a situation where—due to a perpetual cycle of competing and unaccepted science, review, and analysis—the company is not liable for the effects of its actions on the ground, a condition he refers to as a “sustainability enclave.” (Whittington, 2012, 24)

In a similar analysis of discourse, knowledge production, and powerful actors in the Mekong hydropower arena, Cooper (2010) highlights the development of certain fundamental facts underlying the hydropower discourse in the Mekong region since 1950:

- 1) People are poor
- 2) They lack access to electricity
- 3) Access to electricity is necessary for socioeconomic development
- 4) The Mekong is currently under-utilized and has great potential for development
- 5) Developing the Mekong for hydropower will lead to electricity access
- 6) Electricity access will reduce poverty
- 7) Hydropower is the best choice for poverty reduction in the Mekong

(Cooper, 2010, 79)

As Cooper notes, the problems and solutions have been redefined relatively recently, with an emphasis on the necessity of access to electricity for poverty reduction (Cooper, 2010, 106). Moreover, the link between electricity access and poverty reduction – made by powerful actors, including the World Bank, the Asian Development Bank, and the Government of Laos – has coincided with regional growth in energy demand (Cooper, 2010, 107). The chain of logic noted above has formed the basis of hydropower and water resource debate and policy in the region.

While Cooper provides grounding in the evolution of the pervasive Mekong hydropower narratives, a recent analysis of Mekong hydropower discourse considers convergence among anti-dam actors in the region. Li Yong & Grundy-Warr (2012) analyze the pro- and anti- mainstream dam debates in the Lower Mekong Basin and synthesize their key elements to make space for discussion of alternative development narratives and pathways. The pro- and anti-dam discourses in the Mekong are underpinned by oppositional beliefs about the values that rivers provide, their role in development pathways, and conceptualizations of the Mekong as an integrated socio-ecological, economic, and geopolitical region (Li Yong & Grundy-Warr, 2012, 1038). These oppositional frames have led to increasingly heated debate alongside the Government of Laos' continued pursuit and implementation of Mekong mainstream hydropower projects.

According to Li Yong and Grundy-Warr, the pro-hydropower Mekong discourse promotes hydropower as an option for addressing the changing needs of

the region, in particular energy demand, development, and clean energy and sustainability (Li Yong & Grundy-Warr, 2012, 1039). The greater part of their analysis is devoted to analyzing the sometimes divergent beliefs and approaches within the anti-dam arguments. These counter-narratives take issue with the assumptions and values of the pro-hydropower position and are described as attempts to broaden and diversify the public debate around alternative development pathways in the region.

Li Yong and Grundy-Warr interviewed active staff at three prominent international NGOs in the region: World Wildlife Federation, International Rivers, and the World Fish Center. Though all three centers converge in their opposition to hydropower, they differ in how they value the Mekong and view its role in development. WWF's values focus on conservation and protection of non-human nature; The World Fish Centre on retaining sources of healthy fisheries; and International Rivers on sustaining the role rivers play in contributing to diverse livelihoods and cultural heritage. Li Yong and Grundy-Warr link these differences in values to strategies the organizations have taken regarding the hydropower debate, systematically demonstrating the utility of considering discourse as a window into political strategy in the realm of environmental politics. They see the work of recognizing Mekong hydropower counter-narratives as critical to understanding of legitimate alternative development pathways in the region (Li Yong & Grundy-Warr, 2012:1052).

The four analyses cited above have used discourse analytic approaches to consider the evolving World Bank energy and hydropower policies, the

production of pervasive hydropower narratives in the greater Mekong Region, and the strategies and arguments of active environmental organizations in the region. These analyses provide historical and political context for the hydropower debates in the Mekong Region and consider the strategies and motivations of anti-dam actors. However, the Xayaburi debate has been more prominent in the regional and international media and political landscape than past regional hydropower debates. It also represents a new era of hydropower planning in the region, as the first of the Government of Laos' new hydropower development plan. Thus, the Xayaburi case warrants detailed study. In particular, an analysis of the dominant storylines of the Xayaburi debate as well as the position of the Government of Laos are lacking in the literature.

The Dominant Xayaburi Storylines

Here, I use discourse analysis as a way to consider the motivation, values, and strategies of disparate actors in the Xayaburi debate. Four dominant storylines emerged from the interviews. The different storylines reveal how different actors are making sense of the “problem,” the organizing frameworks they are using, and how this shapes and constrains the “solutions.”

The ‘Hydropower for Poverty Alleviation’ Storyline

The hydropower for poverty alleviation storyline is employed by the Government of Laos to promote a clear, beneficial public purpose for its hydropower development plans. Cooper (2010) traces the development of the

poverty/hydropower discourse in the Mekong Region back to United States and United Nations planning in the 1950s and more recently to World Bank and Asian Development Bank discourse. My interviews and analysis are consistent with Cooper's findings. The storyline of hydropower for poverty alleviation is promoted by the Government of Laos and is supported by the World Bank, which is the largest single source of funds for developing countries and has significantly shaped hydropower development in Laos (Kakonen & Haisti, 2012). A recent quote in the Washington Post from Rachel Kyte, the World Bank Vice President for Sustainable Development, describes the World Bank's recommitment to supporting hydropower projects globally: "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." According to this storyline, the problem is poverty and the solution is to generate revenue to address it by developing hydropower. The key assumptions of the storyline are that electricity generation translates into electricity access for the poor, that access to electricity alleviates poverty, and that additional revenue generated through hydropower will be equitably distributed to poverty reduction initiatives. An example of this storyline is seen in a recent statement in the Vientiane Times by Ian Crosby of The International Finance Corporation, a member of the World Bank Group, "I really see hydropower as an opportunity to help Laos invest in its people and use its natural resources to help its people escape from poverty" (Government of Laos, 2013).

While these findings are consistent with Cooper's findings on regional hydropower development discourses, the Xayaburi discourse has another peculiar storyline related to lack of options. The poverty alleviation storyline presents the Government of Laos as a poor country with limited options for economic development and an international imperative to reduce poverty. The Government's hydropower development plan, of which Xayaburi is a part, is presented as being pursued for lack of better alternatives, motivated by the desire to meet internationally established poverty reduction goals—in particular, to graduate from United Nations designation as a Least Developed Country by 2020. One senior environmental official made this explicit: "Listen, 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 (Least Developed Country designation). This project will raise the GDP and help our people." (Interview with senior environmental official, July 12, 2012)

An energy official within the Government of Laos described it this way:

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 with Laos energy official, July 11, 2012)

This sentiment is made more explicit in a recent editorial piece in the Vientiane

Times, the state-controlled daily newspaper in the capitol of Laos:

Laos is one of the least developed nations in the world and the country is trying its best to free itself from poverty, hoping to achieve the mission by 2020...Can Laos produce rice for export? The answer is that it will not be able to compete with Thailand and Vietnam. Can Laos produce cars, computers and TV for export? The answer is that it is impossible in the near future since the country lacks a sufficiently skilled labour force to meet industrial demands. So what is the best option for Laos to build a sustainable economic base? Hydropower power plants are perhaps a central plank, which can help Laos reduce poverty and build the strong and sustainable economic base, thanks to plenty of rivers, forests, tropical rainfall and high mountain terrain suitable for dam development. (Government of Laos, 2012c)

In its quest to promote hydropower as the best option for addressing poverty and developing economically, the Government of Laos has become increasingly dismissive of anyone who opposes hydropower, describing such dissidents as against the development of Laos. Two statements from senior environmental officials demonstrate how the GoL conflates those opposed to Xayaburi as unconcerned about poverty and development.

They are worried about saving dolphins. I mean, we are working to address poverty-we don't care about fish. (Interview with senior environmental official, July 12, 2012)

If they are against dams they are against Laos developing. People who are always opposed to dams are not worth our time. (Interview with senior environmental official, July 12, 2012)

These quotes reveal the Government's claim that opponents of hydropower are motivated by species protection and fisheries more than people, and their characterization of opposition to hydropower as tantamount to opposition to development. The hydropower for poverty alleviation storyline combines arguments for lack of development options, the connection between hydropower

and poverty alleviation, and characterization of opponents as anti-development and pro-fish.

The ‘Sustainable hydropower’ Storyline

The sustainable hydropower storyline is related to but distinct from the poverty alleviation storyline and is another storyline employed by the Government of Laos to justify its hydropower development scheme. As with the poverty storyline, ‘sustainable hydropower’ incorporates World Bank strategy and rhetoric into its statements. A 2011 World Bank Group energy planning paper promotes the twin goals of energy access for the poor and low-carbon energy production:

The World Bank Group supports hydropower for sustainable growth. Many developing countries are and will continue to make investments in energy and water infrastructure at all levels in order to enhance growth, generate wealth, and alleviate poverty (WBG, 2011, 55).

The linkage between low-carbon energy production and hydropower has a long history in Laos, one encouraged and supported by the World Bank (Kakonen & Haisti, 2012). Kakonen has documented the evolution of World Bank energy policy to its current “win-win” strategy of hydropower for poverty alleviation and low carbon energy development (Kakonen & Haisti, 2012). The Government of Laos has incorporated this storyline into its discourse, despite contrary evidence questioning the efficacy of hydropower for both poverty alleviation and low carbon energy production in the region (Foran et al., 2010; Cooper, 2010).

The sustainable hydropower storyline is often connected to the poverty alleviation storyline, to both justify the need to act on behalf of poverty and also to ascribe a moral imperative to the development of hydropower.

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, despite the many obstacles it faces, the country is committing great responsibility to mitigating the worsening effects of climate change. Let's remember also that Laos is helping to preserve the planet, which has been largely polluted by the world's leading industrial countries for generations now. (Government of Laos, 2013)

Here the Government of Laos is portraying itself as a poor country willing to address a climate change threat for which it is not responsible due to low overall emissions as a result of poverty. This portrayal obscures the reality that if Laos develops as it intends to, its emissions will likely rise significantly as it develops a market economy. In this statement, the writer also adopts a planetary scale to justify its efforts, which obscures the inevitable socio-ecological impacts of hydropower at the local scale. The poverty and green development storylines are linked to establish both problems—poverty, climate change—and solutions—hydropower.

The Government of Laos has strategically adopted World Bank Group rhetoric on green energy and sustainable hydropower to promote Xayaburi and its hydropower development plan, as demonstrated in this statement from Virapongh Viravong, Vice Minister, Ministry of Energy and Mines:

Laos is a country blessed with large hydrological resources. Its river provides means of subsistence for the Lao people, and also the neighboring countries. Working always with the aim to protect these riches for the generations to come, we chose hydropower because we have large hydro potential, it is

clean, zero carbon emissions, and renewable....Also note that hydropower contributes 33% to natural capital of Lao PDR. Hydropower is traditionally supported by multinational institutions like the World Bank and ADB, for 40 years. Hydropower is sustainable if and when it is developed responsibly. (Xayaburi Hydropower Official Visit, Luang Prabang, Laos, July 16, 2012)

This statement underlines the GoL's adoption of World Bank strategy and rhetoric. In a 2010 report on Wealth and Sustainability, World Bank economists estimated that 33% of Lao PDR's natural capital is in undeveloped hydroelectric and claimed that when this is developed it is "likely to increase income and the value of total wealth" for the country of Laos (WGB, 2010, p. 13). The report briefly refers to the "careful economic policies and good governance" (p. 13) necessary to ensure that this hydroelectric potential is translated into "sustained growth", but fails to consider such policies or examples of good governance in any detail.

In a recent editorial to the Vientiane Times, the Government of Laos advocates for green energy development at the regional scale:

As mentioned earlier, 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 such as coal. (Government of Laos, 2013)

This quote is representative of rhetoric connecting Laos' development of hydropower to the climate change discourse at the global scale, obscuring local

impacts. The moral, altruistic tone asserts that Laos is developing hydropower to help neighboring countries, but obscures 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, Asian Development Bank, and other influential development actors in the region (Cooper, 2010). In addition to promoting hydropower as a tool for poverty alleviation, the GoL is promoting hydropower as the green energy method of choice, with no mention of alternative green energy options or questioning of levels of consumption and demand-side management in the region.

The ‘Fish & Livelihoods’ Storyline

The fish and livelihoods storyline argues both for greater acknowledgement of socio-ecological relationships as well as alternative development pathways in the Mekong. Whereas many environmental conflicts in the United States hinge on ecocentric arguments of biodiversity and protection of species for their own sake, in the Mekong environmental arguments are generally anthropocentric, connecting biodiversity and species protection directly to human well-being and food sources in what is referred to as a “livelihoods” strategy. The livelihoods storyline is promoted by the anti-dam environmental groups: the regional Save The Mekong coalition, and international environmental NGOs International Rivers (IR) and the World Wildlife Federation (WWF).

The Livelihoods storyline interprets the Xayaburi debate as a problem of rapid development, lack of discussion of development alternatives, and lack of

transparency for hydropower development and planning. The solutions are then conceived of as more transparent collaboration among Mekong governments and civil society actors, more debate of alternatives to dams for development, and in the case of WWF a moratorium on dam development until more science on species can be conducted.

This discourse emphasizes Mekong Basin citizens' direct dependence on the river's healthy ecosystems for food and livelihoods, as demonstrated by these excerpts from the WWF and International Rivers web pages:

The Lao government's determination to plow ahead with construction of the controversial US\$3.5-billion Xayaburi hydropower dam in northern Laos puts the mighty Mekong River's spectacular biodiversity, rich fisheries and livelihoods - vital to nearly 60 million people - in grave danger. (WWF, 2012)

A water conflict has emerged in Southeast Asia over the proposed 1,285 MW [Xayaburi Hydropower Project](#) in Laos. The conflict focuses largely on the impact that this and other Mekong dams will have on food security. Over 60 million people live in the Lower Mekong Basin, and 80% depend on the river system for their food and livelihoods. (International Rivers, 2012)

Though this storyline does acknowledge that it is the so-called cascade of dams—or all of the proposed dams in Laos and Cambodia on the mainstream Mekong and the tributaries—that are of concern, it often emphasizes Xayaburi as the tipping point responsible for the entire future of the Mekong River. This is demonstrated in Figure 1., an advertisement in the Bangkok Post proclaiming that “The Xayaburi dam will mean the end of the world's largest freshwater fishery.”



Figure 1. Save The Mekong Advertisement in Bangkok Post.

<http://www.internationalrivers.org/campaigns/mekong-mainstream-dams>

The dominant storyline, that livelihoods of millions of people are threatened by the Xayaburi dam, has also been taken up by both international media and powerful international donors such as the United States. Below is a sampling of international press coverage of Xayaburi using the livelihoods storyline:

Countries downstream from the \$3.5bn (£2.2bn) dam fear it will affect fish stocks and the livelihoods of millions (BBC, 2012).

If the Xayaburi project goes ahead, it would open the door to other mainstream Mekong dams. Cambodia has proposed two, and Laos nine. If they were all built, the Mekong would become a formidable source of power in the region. But it might no longer be the food resource upon which so many people rely (BBC, 2011).

The loss of the fish catch for millions of Asia's poorest people will prove larger than the entire freshwater catch of Europe and West Africa combined (The Economist, 2012).

And a representative statement from the United States, which is a donor to the Mekong River Commission:

"The United States and the global community all have a strategic interest in averting regional conflict by preserving the health and well-being of the more than 60 million people who depend on the Mekong River." (Senator Jim Webb, as quoted in Fuller, 2011)

Another common argument that arose in interviews conducted for this research is the need for development alternatives. One environmental activist stated, "There are other options for economic development. There are other options for meeting regional energy demand—dams are not the only way. But these are not being discussed." (Interview with environmental activist, July 11, 2012)

On their website, IR criticizes the notion that dams will bring development, citing Laos' weak governance and lack of mechanisms to equitably distribute revenue generated from hydropower:

Lao government officials claim that the Lower Mekong Dams will create a cash windfall that will open the doors to rapid economic development. But revenue does not automatically lead to economic progress.

Much of the revenue will disappear as it travels from the dams to the Lao people. Laos lacks the institutions and capacity needed to manage the revenue effectively, and its government suffers from rampant corruption. Laos lacks a strong civil society and media to independently monitor how the money is spent. The Lao government has provided little information on how it intends to spend the revenue to improve people's lives. As with past hydropower projects in Laos, it is unlikely that the poorest Lao citizens living near the dams will see the benefits. (International Rivers, 2013)

In their blog comments, International Rivers' Kirk Herbertson advocates for discussion of alternatives to hydropower for development: "We hope that the international community can come together and work with the Lao government to find better alternatives for what 'development' can mean."

Actors employing the Livelihoods storyline thus argue for broader debate about alternatives to dams for development. An energy analyst from another international NGO put it this way: "To me, there are two issues. One is the planning—is this electricity needed and how can it be produced and is this dam the best way to produce it? The second is more complicated and less talked about: how can Laos develop and get its own sources of income?" (Interview with energy analyst, July 6, 2012).

The ‘Knowledge Production’ Storyline

The Knowledge Production storyline is a storyline of environmental problem solving promoted by the dominant water institution in the region, the Mekong River Commission, as well as development and aid entities such as AusAID and USAID. Advocating for more knowledge and coordinated, basin-wide dialogue and planning to solve the water resources dilemmas of the region, this storyline promotes expert knowledge in the form of assessments, reports, technological models, and decision support tools. The actors in the knowledge production storyline view lack of knowledge and collaboration as the problem, and promote greater scientific knowledge and greater basin-wide planning and participation as the solution. In the case of Xayaburi, this has led to, as one environmental researcher put it, “a report treadmill” because “producing reports is much easier than suggesting how the Government [of Laos] can raise revenue” (Interview with environmental researcher, July 9, 2012)

Kakonen and Hirsch (2009) have observed the “anti-politics” of the MRC, whose focus shifted beginning in 1995 to producing knowledge and encouraging participation for integrated water resources management. This shift places particular emphasis on expert knowledge and the production of scientifically informed documents and tools. Studying and assessing the region’s water resources and producing tools for decision-making have become the end goal, not just the means. As they and others have noted (e.g. Molle, 2008), the MRC—along with the international community—has taken both a technocratic and participatory turn, aiming to provide sound, neutral science and more democratic fora to facilitate integrated water resources management. Interviews with two

officials at the MRC demonstrate the simultaneously technical, participatory and ostensibly apolitical approach of the MRC. One representative described their role as “...to provide a forum, not to make judgments” and said that by “creating decision-support tools and supporting multi-stakeholder dialogues we support member countries in better understanding the impacts of hydropower” (Interview with MRC representative, July 11, 2012). When asked whether this approach supported critical, meaningful dialogue the interviewee responded: “I understand that there hasn’t been sufficient discussion on consideration of demand-side management or other renewable energy sources, but instead our program on hydropower provides options for member countries to consider when they have a hydropower project.”

Kakonen and Hirsch point out that not only are models and tools not value-neutral, nor appropriately sophisticated to represent the complexity of the diverse ecology within the Mekong River (or any other) basin, but “it is not self-evident that they would actually influence decisions and policy-making” (Kakonen & Hirsch, 2009, p. 350).

The tendency to emphasize the production of reports and tools is observed elsewhere in the region. USAID’s Eco-Asia project is a collaboration with the MRC to “promote the adoption of improved conflict management policies, plans and mechanisms at the regional and country levels” by developing “strategies and tools for addressing disputes in the watershed related to planned development activities.” (USAID) Similarly, the AusAID Mekong River water resources program lists its primary objectives as:

- Strengthening institutional frameworks to improve Integrated Water Resources Management
- Improving availability of reliable water resources knowledge
- Supporting water resources development decision making processes. (AusAid)

The goal of this knowledge production is to support informed decision-making on water resources development, which in the Mekong refers primarily to dams.

However, this assumes that the reason decision-making is currently poor is due to a lack of knowledge and insufficient decision-making tools, not (among other reasons): the GoL's desire for economic development, the ability of private interests to drive construction and development (Middleton et al., 2009), corruption and poor governance structures, lack of transparency, lack of alternative development pathways, and so on and so forth. By defining the problem as a lack of knowledge, the MRC and other influential actors have set the solution as producing more knowledge and understanding, but the impact of this proliferation of "knowledge" and "tools" is unclear and consistent with the "anti-politics" characterization given by Kakonen and Hirsch. As one environmental researcher interviewed put it, "There is an assumption that impact assessments and assessment tools inform decision making-but it's not a technical decision. It's a political decision and a values choice-so the preoccupation with assessments is somewhat misplaced." (Interview with environmental researcher, July 11, 2012)

The Government of Laos has adopted the language and, to a certain extent, actions of the knowledge production discourse to promote their Xayaburi agenda. If the problem is lack of knowledge, the GoL has commissioned its own knowledge development by paying environmental consultants to produce their

own reports and has used these reports as justification for building the Xayaburi dam. One environmental researcher interviewed described how the act of commissioning environmental reports has become politicized in the Xayaburi debate:

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 [Virapongh Viravong, Senior Energy Official for the GoL] 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 [the reports] represent (Interview with environmental researcher, July 9, 2012).

Interviews with senior environmental officials from the Government demonstrate how the Government of Laos has created a storyline of adherence to the guidelines of the World Bank, the MRC, and collaboration with independent consultants to lend legitimacy to its actions:

We have been working with the World Bank for a long time. We hired a very expensive, internationally-known consulting firm. We have to listen to them, they have experience with hundreds of dams around the world. We are trusting them. We have to trust them. We hire independent consultants. For every project we retain independent consultants of international organizations.

We follow all of the World Bank guidelines, the MRC guidelines. 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. We are open (Interview with senior environmental official, July 12, 2012).

Further testimony to the enduring influence of the knowledge production storyline is that the World Bank and regional Asian Development Bank have sought to adopt this storyline in a recent reframing of their roles as hydropower financiers. As foreign, private investors have begun to step forward to fund

infrastructure and development projects, the WB and the ADB have reframed their services in order to remain relevant in the region (Middleton, et al., 2009). Middleton et al. note that the Banks' agendas—to invest in hydropower for poverty reduction in the region—have remained the same but that they are broadening their areas of expertise to include “knowledge solutions.” The Asian Development Bank's Strategy for 2020 demonstrates the adoption of knowledge production language to promote their continued relevance in the region:

ADB will play a bigger part in putting the potential of knowledge solutions to work in the Asia and Pacific region. ADB's unique abilities to contribute and apply development knowledge are rooted in its central position in identifying trends within and across the region, interdisciplinary and integrated assistance approach, and capacity to implement insight and knowledge via large, attractive financing. It will employ these advantages to support the more robust body of empirical knowledge needed to resolve current and emerging obstacles to development, utilizing its multidisciplinary staff. (ADB, 2008 p. 15)

Discussion

Through analysis of interviews, policy documents, organization web sites, and media reports, this study has identified the primary frames, recurring storylines, and key conceptual frameworks of actors within the hydropower debate. This investigation of the dominant storylines related to the Xayaburi dam and hydropower development in the Mekong Region has exposed four storylines which occasionally overlap in their arguments for and against hydropower development in Laos and the Mekong Region, as well as in their definition of the problems and solutions that hydropower represents. The four storylines emerged as the most prevalent in the Xayaburi debate; however, it should be noted that

they are not immutable. The nature of this thesis was to take a snapshot, to capture the storylines that represented a moment in time of an ongoing and complex debate. Yet a discourse, and its requisite storylines, is constantly evolving. The primary limitation of this analysis is that it fails to capture the evolution of the storylines—the interplay among actors and storylines *over time*. In the case of Xayaburi, there is potential for the storylines to converge (or diverge) as the debate continues. There is already some evidence of this, as the initial attempts to equate Xayaburi with the end of Lower Mekong Basin fisheries are giving way to some calls for more tempered, moderate debate and realistic negotiations, particularly as construction of the Xayaburi dam continues (Vidal & Geheb, 2012). Despite this limitation, this thesis does capture elements of the Xayaburi discourse that have obscured common purpose and it suggests an entry point for the international community in its discussion of hydropower in Laos.

The finding that the Government of Laos has adopted the enduring hydropower for poverty alleviation and more recent hydropower for green development storylines demonstrates the influence international organizations—particularly the World Bank—still have in shaping the ideas and concepts related to development in general and hydropower in particular in the Mekong Region.

The interviews and analysis of the poverty and green development storylines also highlight motivating factors for the Government of Laos that the dominant storylines have obscured. Many of the individuals interviewed for this research stated their belief that the Government of Laos does not want to be considered a poor country and does not want to be reliant on international aid and

that these are the drivers of hydropower development. It is significant that the Government views hydropower as its only option for economic development and that, in the words of one scientist at the MRC:

Listen, 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. Xayaburi is about reducing dependence on foreigners and becoming a more developed country. Hydropower-big dams in particular-is a point of national pride for them. They're sick and tired of being told how poor they are." (Interview with MRC scientist, July 11, 2012)

The discourse analysis also highlighted the anti-dam coalition's focus on impacts to livelihoods. This storyline emphasizes the diverse ways millions of people in the Mekong Region depend on the river and its fish for their livelihoods. However, through this analysis it has become clear that the Government of Laos categorizes all dam opponents as focused on fish and species, not poverty, when concern for those living in poverty in the Basin is a common one. Thus, the more nuanced "livelihoods" framing has failed to pierce the veil of GoL strategy. This analysis suggests that the GoL still does not fully acknowledge the fisheries-livelihoods connection and is conflating all opponents' arguments as based on concern for fish, not concern for people. The livelihoods storyline does not appear to be influencing the GoL-in interviews with Government officials the livelihoods concept was not mentioned once, though Government officials emphasize their own actions as being motivated principally by plight of the poor. Perhaps the emphasis on livelihoods has not been effective because it has not addressed the position of the Laos government, namely that they need economic development for poverty reduction.

Another key finding is that the concept of producing knowledge and tools to improve planning has been adopted by major actors with the intent of supporting more scientifically-informed, participatory decision making. Yet the efficacy of this remains to be seen and, instead, has led to an apolitical “treadmill” of knowledge production that legitimizes institutions and supports the proliferation of reports and assessments, but does not necessarily change practice or influence policy.

In addition to identifying the central storylines in the Xayaburi debate, this discourse analysis also revealed deeper, fundamental questions that have been implicit in the Xayaburi debate but remain under-explored. Perhaps, as one water expert noted, there are areas of convergence and possibilities that the current debate is obscuring: “Where is the middle way? The middle way is being obscured by extreme rhetoric—Xayaburi will lead to the collapse of all the fisheries in the Mekong on the one hand, on the other hand Laos has no chance to develop without building huge dams. Neither are true.” (Personal interview with regional water analyst, July 6, 2012) Several people interviewed for this thesis expressed the notion that the Xayaburi debate has crystallized bigger questions about development pathways and energy. “The question in the region is: where is the energy going to come from? No one is answering that, and meanwhile we have a country willing to build dams and generate electricity” (Personal interview with hydropower industry expert, July 11, 2012).

Another question that frequently emerged in interviews for this thesis relates to what development alternatives a country like Laos has. Several

interviewees went so far as to say that the preoccupation on producing reports has obscured the more fundamental failure of the international community to offer alternatives: “How can Laos develop and get its own sources of income? No one is thinking about this. It’s easier to write reports than to suggest ways for Laos to generate income without hydropower” (Personal interview with journalist, July 10, 2012). Though the livelihoods discourse is promoting consideration of alternative development visions, it fails to present clear examples of such alternatives. A handful of reports have been produced, including one commissioned by USAID that offers regional benefit-sharing as a possibility for averting large-scale hydropower development in Laos (e.g. Costanza et al., 2011), but for the most part the international community has bemoaned Laos’ development plans without offering a clear vision for an alternative. This analysis has revealed that a central motivation in the Government of Laos’ hydropower planning relates to its desire to generate revenue and its perception that no alternatives to hydropower exist. This could be a point of entry for the international community to re-frame the Xayaburi and the hydropower debate in terms that directly respond to these motivating factors.

Conclusion

We are witnessing a global resurgence in construction of large dams and hydropower for development has recently been reaffirmed as a global strategy for the World Bank (Schneider, 2013). This interest in dam building has been particularly strong in the Mekong Region, where a booming economy and other

development drivers have led regional governments, Laos in particular, to plan massive hydropower development.¹ Since the Government of Laos first announced its plans to dam the mainstream Mekong in 2010, international concern over the social and environmental impacts of planned hydropower development in Laos has sparked a debate about the impacts of dams, water governance, and how to balance economic development with social and ecological imperatives.

This thesis seeks to identify the dominant storylines within the Xayaburi dam debate as a window into the social processes that influence hydropower decision-making in the Laos. Analysis of the major storylines has revealed the ways in which certain ideas and concepts have taken hold and continue to influence hydropower development in Laos. Ultimately, discourse analysis is a tool for illuminating how knowledge and power are embodied in language, practices, and institutions and how actors influence the transformation of knowledge into policy. In the case of Xayaburi, discourse analysis has reaffirmed the contested nature of hydropower planning and development in the Mekong Region and highlighted potential areas where the discourse could be shifted to acknowledge the Government of Laos' position and motivation for building large dams, as well as and the distinct need to explore opportunities for alternative development pathways in the region.

¹ China is also continuing to move forward with extensive hydropower construction, see: <http://www.nytimes.com/2013/05/05/world/asia/plans-to-harness-chinas-nu-river-threaten-a-region.html?pagewanted=all>.

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