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The Tentative First Steps in the Creation of a Himalayan Hydroelectricity Market between Bangladesh, Bhutan, India, and Nepal

Eric Strahorn[1]

ABSTRACT: *For the past few decades, Bhutan, India, and Nepal have constructed hydroelectric dams in the Himalayas. For Bhutan and Nepal, this has partly been to sell electricity to India, but this has been based on bi-lateral agreements and the private sector has not been involved. Recently, India signed agreements to sell electricity to Bangladesh, and there have been efforts by Bangladesh to purchase electricity from Nepal, even though they do not share a common border. Throughout the region, there have been several attempts to move past the old developmental state and build a private market for hydroelectricity. Governments have established private-public partnerships, created independent public sector power corporations and allowed the involvement of private corporations. This process, however, has been hampered due to domestic and even international resistance across the Himalayas. Projects in India and Nepal have faced vigorous objections from a variety of actors over environmental concerns and the displacement of local populations from areas involved in dam construction. The recently ended civil war in Nepal, along with the varying pace of economic reform in Bangladesh, Bhutan, and India, have posed several complications to the market creation process. This paper will examine the steps taken thus far to establish a private hydroelectricity market between individual countries, and evaluate the prospects for the construction of a full-fledged electricity grid connecting all four countries that would allow this market to operate throughout the region. Utilising different theories of governmentality it will analyse the sites of both reform and resistance, and identify the different concepts of development involved in order to understand the consequences at stake for the various actors in the region.*

Key words: Himalayas, hydroelectricity, economic liberalisation, SAARC, governmentality

Introduction

In 2005, the members of the South Asia Association for Regional Cooperation (SAARC) agreed to create a regional "energy ring" that would develop an electricity grid, which would connect each of them and allow for routine cross-border importing and exporting of electricity.[2] The basic premise behind the agreement is that electricity is essential for economic growth and the reduction of poverty, but across the region the demand for electricity greatly exceeds the supply. Access to electricity is low compared to other parts of the world with 28 per cent of the population in Bangladesh having access, 40 per cent in Bhutan, 46 per cent in India, and 26 per cent in Nepal

(Srivastava & Misra 2007); and hence, for SAARC countries there needs to be further electrification in the region.

This paper will examine efforts to create a cross-border electricity grid located mostly in the Himalayas in the eastern section, "quadrilateral" section (Srivastava & Misra 2007:3363), or "growth quadrangle" (Wickramasinghe 2001:246) of SAARC, which would connect the national grids of Bangladesh, Bhutan, India and Nepal. Hydroelectricity is seen by national governments, engineering and energy firms, and International Financial Institutions (IFIs), such as the Asian Development Bank and World Bank, to have enormous benefits with relatively few drawbacks. Hydroprojects are seen to have great potential for economic growth, while at the same time producing less pollution than commonly used fuels like coal, reducing reliance on non-renewable fossil fuels, and increasing energy security by reducing dependence on imports from politically volatile places like the Middle East. (Dhungel 2008; Ford 2008; Khagram 2004; Siddiqi 2007). However, hydropower projects require tremendous capital and the four quadrilateral states have sought out private and foreign investment to drive new projects (Srivastava & Misra 2007).

With all four countries pursuing economic liberalisation and seeking non-governmental sources of investment, particular attention will be paid to private sector organisations. With the goal of marketisation of electricity generation and supply, private corporations are increasingly becoming an important part of the construction of SAARC's energy ring especially as companies in South Asia are expanding their activities beyond their home country's borders (Dhungel 2008; Obaidullah 2010b).

This agenda is, however, being challenged in whole, or in part, by various actors with sometimes overlapping and contradictory motivations. Objections to hydroelectric projects take many different forms that can not only delay or halt a specific project, but can also question the utility or necessity of hydroelectricity itself, or even challenge the coherence of the discourse of modern environmentally friendly economic development.

This paper starts by examining the motives for privatised hydro, reasons for opposition and resistance, and the utility of various theories of governmentality. Thereafter, it looks at several specific cases across the Himalayas such as the Tala dam in Bhutan, Tehri dam and Loharinag Pala project in India, and the Upper Karnali and West Seti projects in Nepal.

Governmentality and the merits of hydro liberalisation and the private sector

With varying levels of commitment, the governments in South Asia began programs of neoliberal economic reform in the 1980s and 1990s. There has been a great deal of debate over the motivations of these governments especially in terms of whether the

reform agenda was imposed on them by the International Monetary Fund (IMF) and the World Bank during economic crises (Dash 1996; Frankel 2005; Jenkins 1999; Mukherji 2009; Sharma 2006; Stiglitz 2002). Clearly, pressure from the IFIs was an important factor in initiating economic liberalisation and, given this unpromising start, it is no surprise that both the process and results of reform has been uneven (Bhattacharyya 2007; Malla 2008; Newbery 2007). Reforms in the energy sector, in particular, have been limited when compared with other sectors of the economy, with private companies contributing to only a small percentage of electricity generation and distribution throughout the region. In Nepal roughly 20 per cent of power generation is provided by the private sector, while in India it is about 16 per cent (Dhakal, Pradhan & Upadhyaya 2009; Shukla & Thampy 2011).

Throughout the region, successive governments have opened parts of the energy sector to private companies, but proponents of reform find that much has yet to change. [1]The World Bank, in particular, has complained that the public sector still dominates the energy sector with vertical operations that both generate and distribute electricity (Newbery 2007; World Bank 2008). Politicians delay reform in order to use public utilities as tools of both state policy as well as political advantage, with the result that public companies sell electricity below market rates and provide subsidies for preferred groups (Mala 2008; Newbery 2007). For hydroelectricity, the prominence of the private sector is even more pronounced. In India, for example, 97 per cent of hydroelectricity was produced by the public sector as recently as 2006 (Ramanathan & Abeygunawardena 2007). State owned companies are actually expanding their activities with cross-border projects to such an extent that even state owned companies from outside the region, like the China Three Gorges Corporation, are seeking to get involved (Bhusal 2011; Chellaney 2011).

Moreover, political instability, especially in the 1990s, and corruption have hindered liberalisation in Bangladesh, India and Nepal. Bhattacharya (2007:327) describes the combination of self-interest and short-term thinking that is found all too often in the public power sector.

Being state-owned entities, the electric utilities in the region were traditionally under political control, which benefitted the political masters both directly and indirectly. Reform initiatives opened new opportunities for quick personal gains for bureaucrats and politicians, and as politicians were unsure about their tenure in

[1] However, the World Bank (2008) does find it "heart-warming" (xx) to see that despite the slow pace of reform the governments of South Asia are finally beginning to turn away from the old mindset of "inward-looking" development based on national self-sufficiency and import substitution towards "outward-looking, export-oriented reforms" that initiate "a virtuous cycle in which growth and liberalization mutually reinforce one another" (21).

power, maximisation of their personal gains required a short-term outlook and focus on quick gains. This explains the licensing and approvals of unviable projects, agreeing to unfavourable terms for power purchase from private utilities, and offering attractive incentives – all at the cost of the state utility and contrary to long-term objectives of the sector.

There is also the difficulty of defining the exact boundary between public and private enterprises with Public-Private Partnerships (PPP), joint ventures, as well as the large scale financing of projects by national governments and IFIs rendering–a complexity to definitions. An example of this lack of clarity can be found in the Khimti 1 Hydropower Scheme in Nepal. The International Finance Corporation (IFC) of the World Bank refers to Khimti 1 as the "first private hydropower scheme in Nepal" (IFC 2011:20) even though Himal Power Ltd (HPL), the company building it, does not qualify as privately owned or funded in any conventional sense of the term. HPL is a PPP that is 57 per cent owned by SN Power, itself owned by the Norwegian government, while the private Butwal Power Company of Nepal owns a minority stake in the company and has received extensive funding from the IFC, Asian Development Bank, the Norwegian Agency for Development Cooperation, the Nordic Development Fund, and the Norwegian Investment Fund for Developing Countries (Norfund).3 Clearly, the bulk of the risk associated with this project has not been assumed by the private sector and the project cannot be described as a private sector venture in any meaningful way.4

In addition, the entry of private companies into the energy sector has not always proven to be the panacea that advocates of liberalisation have expected. With the Andhikhola Hydroelectric and Rural Electrification project in western Nepal, Bastakoti (2006, 28) observes that private utilities like the Butwal Power Company "are not willing to put some profit aside to promote people-centred development approaches … but are solely oriented to commercial interest." Some of the companies have been involved in outright criminality such as Enron, which signed a contract to build the Karnali-Chisapani Hydropower Project in Nepal in 1996 (Crow & Singh 2000; Sharma 2006). At the same time officials in the government of Nepal had noted that they lacked "experience in competitive bidding processes for selecting foreign private investors in power projects" (Upadhyay & Tuladhar 1997:95) and thereby reinforced the need to guard against the practitioners of predatory capitalism, which is so often overlooked by the most ardent apostles of liberalisation.

Liberalisation and cross-border trade

Cross-border trade in electricity within South Asia is an important element of the liberalisation of the power sector. In a general sense, advocates of cross-border trade

in electricity see it as a way to promote greater overall economic integration within South Asia while fostering economic growth. The Asian Development Bank, for example, has incorporated this perspective in its lending policies (Ford 2009). Obaidullah (2010b:7) states that "regional electricity trade is one of the most lucrative items of the trading basket of South Asia" and this is a major driving force behind SAARC's goal of a regional energy ring.

In a more tangible sense, cross-border trade in electricity is necessary due to the technical aspects of power generation and distribution. Energy resources are scattered throughout the region and, especially with hydroelectricity, the generation of electricity occurs great distances away from the centers of demand. Electricity itself cannot effectively be stored and so it must be transmitted across national borders from, say, dams in Bhutan to consumers in Delhi (Obaidullah 2010b). The only way to store electricity would be to construct large storage dams that hold back water for future use (Sengupta 2001). As will be discussed below, storage dams are the most controversial of the different types of hydroelectricity projects, and hence planners have turned to the construction of cross-border transmission lines connecting relatively smaller projects.

Cross-border trade in electricity, however, has had little overall impact on the energy sector thus far. Despite efforts to add hydroelectric projects over the past decade, Nepal is still a net importer of electricity from India (Pokharel 2007) and the government recently declared an energy emergency as the country has had to turn to oil imported from India to augment flagging hydroelectricity production (Rai 2011). While Bhutan has been far more successful in building new dams, it contributes only about 0.5 per cent of India's peak electricity demand (Dhungel 2008). It should be noted, though, that Bhutan itself has benefitted greatly from its increasing electricity exports to India. In 2006, the government of Bhutan derived about 45 per cent of its revenues from electricity exports (Dhakal, Pradhan & Upadhyaya 2007).

There have been longstanding political barriers to expanding cross-border trade in electricity despite the potential benefits. Even though both Bhutan and Nepal "have hydropower export friendly laws and policies" (Obaidullah 2010a:viii) the legal infrastructure necessary for routine long-term, large-scale trade has yet to be created. Mala (2008) argues that policymakers are still beholden to ideas of economic nationalism and overly value national self-sufficiency in energy as a high priority. In contrast, Subedi (1999:954) suggests that Nepal is less motivated by a desire for self-sufficiency but sees India as eager to "exploit Nepal's hydropower potential to its advantage, and that this perception is based on earlier agreements which allowed India to benefit disproportionately than Nepal." The legitimacy of this perception, however, has been challenged by Upredi (1993) and Dhungel (2008). Upredi acknowledges that while some Nepali criticism of past agreements is valid, most of it is due to the domestic politics of vested interests and partisanship, and that India has never

intended to bully Nepal. Dhungel dismisses Nepali concerns as needless anxiety that should be set aside given the importance of Nepal's economic self-interest in producing more electricity for domestic consumption as well as sale to India.

The demand for hydroelectricity

Throughout the region, there has been a renewed interest in developing hydroelectricity as a power source after years of relative decline. In South Asia as a whole, the share of electricity generated from coal has risen from 56.9 per cent in 1990 to 66.2 per cent in 2000, while that from hydro has declined from 27.6 per cent to 15.3 per cent over the same period (Thakur & Daushik 2004). In India, the share of electricity from hydro has dropped from 49 per cent in 1951 to 17.7 per cent in 1998 (Sengupta 2001). Moreover, the majority of people in South Asia do not have access to electricity and rely on biomass sources like firewood (Srivastava & Misra 2007) with the result that both indoor and outdoor air pollution is worsening. The indoor air pollution generated by biomass sources has contributed to respiratory illness among rural populations, especially women (Malla 2008). Outdoor air pollution from coal and other sources has placed "great stress on the atmosphere" (Sengupta 2001:184) in, among other things, the forms of carbon dioxide and black carbon which contribute to global warming and glacier melt in the Himalayas (Malone 2010; Qiu 2010; Xu, Shrestha, Vaidya, et al (2007).

In contrast to fossil fuels and biomass, advocates see hydroelectricity as renewable and less stressful on the environment (Malla 2008; Sengupta 2001). The World Bank has gone so far as to declare, "the Himalayan hydropower sites are, from a social and environmental perspective, among the most benign in the world" (Dharmadhikary 2008). In particular, small hydro facilities, often referred to as run of river projects, are seen as impacting the environment less than the alternatives because while they channel a river's waterflow, and do not create large storage reservoirs that submerge farmland and forests (Ramanathan & Abeygunawardena 2007).

The most important driver of demand for hydroelectricity is the vast potential supply of power from the Himalayan Rivers that is yet to be exploited. Calculations vary, but India has developed about 20 per cent of its hydro potential while Bhutan has used only about 6 per cent of its potential and Nepal roughly 1.5 per cent (Malla 2008; Obaidullah 2010a; Ramanathan & Abeygunawardena 2007). Proponents of hydroelectricity see massive volumes of power simply waiting to be exploited, which will support continued economic growth for years to come. There is one caveat, though, with these estimates and projections, in that they may not be realistic at all. One factor is the differentiation between theoretical potential capacity and economically feasible potential capacity. The latter, of course, is based on several

assumptions, many of which are difficult to quantify, such as the social and cultural costs of projects (Dharmadhikary 2008). In addition, some of the available quantitative data, such as the volume of waterflow in Bhutan's rivers is quite limited. Baillie and Norbu (2004:342) note that rainfall and riverflow data from Bhutan are gathered at stations that do not "yet meet the international standard of 30 years of continuous records, and the data runs are too short and interrupted for detailed statistical analysis", which is a significant complication rarely mentioned in studies of hydroelectricity by the World Bank, the Asian Development Bank, and private corporations. Moreover, most studies of the hydroelectric potential of the Himalayan Rivers also fail to account for the other capital assets in the ecosystems besides electricity which are described by Rasul, Chettri & Sharma (2011:2) as including "supporting services that maintain the conditions for life; provision services that provide direct inputs to livelihoods and the economy; regulating services such as those that provide flood and disease control; cultural services that provide opportunities for recreation, and spiritual or historical sites…" This results in lopsided balance sheets that prioritise some modes of value over others.

Another element in the estimates of hydroelectric potential is the question of large, or mega storage, dams versus smaller run of river projects. Storage dams are large structures, dozens or hundreds of meters tall that hold and store water in reservoirs that sometimes cover several hundreds of square kilometers, while run of river projects involve smaller structures that channel water flowing through turbines. In their operation, run of river projects rely on the volume of water available in the river, which varies seasonally while storage dams hold water for use at a later date. For proponents of hydroelectrivity, large storage dams are necessary in order to generate the amounts of electricity needed to sustainably drive economic growth. A small run of river dam, like Kurichu in Bhutan, has a height of 55 m and has the capacity to generate 60 MW (megawatts) while a large run of river dam such as Tala in Bhutan has a height of 92 m and the capacity to generate 1,020 MW. In contrast, the Tehri in India is a storage dam with a height of 260m, a generating capacity of 2,400 MW and a reservoir or submerged area of 52 km^2, and the proposed Pancheshwar dam on the India-Nepal border would be even larger with a height of 315 m, generating capacity of 6,000 MW, and a reservoir of 134 km^2 (Everard & Kataria 2010; Malla 2008; Obaidullah 2010a). Furthermore, as Obaidullah (2010a) notes, projections of the hydro potential in Nepal assume that at least half of all new projects would be large storage dams. It is simply not possible to generate the amounts of electricity planners want with only run of river projects (World Bank 2008).

It should be noted, however, that the classification of dams is an inexact science. In some cases, the builders of a given dam will attempt to minimise potential objections to the project by simply calling it a run of river project, regardless of whether it really is, but more importantly, some dams incorporate elements of both

run of river and storage designs. They are often classified as run of river even though they have a greater environmental impact due to the incorporation of substantial storage reservoirs and underground water diversion tunnels as long as 15 km (Dharmadhikary 2008).

Objections to hydro

Objection to hydroelectric development in the Himalayas has taken many forms over the years and is subject to divergent readings. Because of the multiplicity of perspectives,it is difficult to generalise, but it is clear that sweeping dismissals of criticisms of hydroprojects as merely NIMBYism are not accurate.5 Objections to hydroprojects can take the form of technical criticisms in a given project's design, funding mechanism, or other details as well as a determined resistance to stop a proposed dam by the people adversely affected by the size or location of the project.

The criticisms to hydroelectricity project can be grouped together in an admittedly arbitrary, but heuristic manner. One area of objection disputes the claims that Himalayan hydroelectricity is environmentally benign or at least is minimally invasive. Bhatt (1992), Dogra (1992) and Valdiya (1993) argue that building large storage dams in seismically active areas like the Himalayas is inherently dangerous. Should a large dam like the Tehri be damaged or destroyed in an earthquake, the potential floods could be devastating to millions downstream. Kumar (1986) and Johnson (2010) point to the damage caused by storage dams when they submerge dozens or hundreds of square kilometers of forests and farmland. Bahuguna (n.d., 7) reflects the views of thousands of people living near allegedly safe dams when he declares, "the Himalaya is bleeding today on account of the onslaught of aggressive developments." (See also Hannam 1998). Kishwar (1995:7) agrees, arguing that the Tehri dam in particular will render the Ganges "a dead river."

Another area of objection centers on the distribution of the benefits of hydroelectricity projects. Dogra (1998) and Dharmadhikary (2008) question the assertion that these projects benefit the nation as a whole and argue that they only provide electricity to the urban elite. Kumar (1996) and Bhattacharyya (2007) claim that the agenda to build hydroelectric dams is driven in part by profit-seeking private companies with close ties to powerful politicians instead of a political process devoted to improving the common good. Dharmadhikary (2008:10) points to the "large number of private companies, many without any previous experience in the sector, jumping in to sign MoUs [Memoranda of Understanding] for building hydropower projects" in order to capitalise on the hydro agenda while it lasts." Kishwar (1995:13) goes further in arguing that a mega project provides "an opportunity for large scale money-making through corruption and outright loot, by contractors, bureaucrats and politicians."

A third set of objections relates to the adverse affects, of hydroprojects, to the people living near them. An understanding that the largest dams are "near" is a relative term and can encompass hundreds of square kilometers thereby challenging received notions of the "local" (Dirlik 1999; Escobar 2001; Ferguson & Gupta 2002). Everard & Kataria (2010) and Bisht (2009) argue that with past hydroprojects the people forcibly dispossessed of their homes and farms received inadequate or no rehabilitation, and the oustees were plunged into poverty. Johnson (2010) further argues that the methods commonly used by the public and private sectors in planning and building large hydroelectricity dams violate the basic human rights of those living near the project sites.

A fourth area of objections confronts the empirical record of hydroelectricity projects and argues that the promises made by dam advocates have not been kept. Past dams have cost more than projected, the actual power generated has been lower than expected, and the lifespan of the dams have been shorter than planned (McCully 2001). One distinctive feature common to numerous projects built during the past four decades has been an unanticipated process of siltation where the reservoir, diversion tunnels and turbines get filled with silt surprisingly quickly. Dogra (1992) and Dharmadhikary (2008) note that Himalayan Rivers have heavy silt loads and that dam designers consistently fail to account for them. Most new project proposals tend to regard siltation as a routine matter that can be handled through advanced technology.

Utility of theories of governmentality

The term and concept of "governmentality" originated in the later work of Michel Foucault in his efforts to interrogate the mentalities of government, or as described by Sending & Neumann (2006:657) as "the rationality characteristic of the systematic thinking, reflection, and knowledge that is integral to different modes of governing." One of Foucault's insights was that the state's creation of the subject is not a one-way process relying on the use of force from the top down. Agrawal (2005:216-17) explains that the "goal is to understand and describe how modern forms of power and regulation achieve their full effects not by forcing people toward state-mandated goals but by turning them into accomplices."

The subsequent literature on governmentality has recognised that Foucault's explication of governmentality, in the words of Hindess (1997:258), "is seriously incomplete." However, this literature tends to skew towards abstraction and away from everyday practices. According to O'Malley, Weir & Shearing (1997:504), the literature "tends to generate ideal typifications which often are in danger of being little more than the systematised self-representation of rule." Agrawal (2005) argues that Foucault's ideas can be investigated on an evidentiary basis so that governmentality can serve as an analytical optic through which we can understand the "nature of

institutionalized power" (219). There is, though, an important caveat in Foucalt's conceptualisation of governmentality "as a form of power exercised over populations [that] assumes the frame of the nation-state" (Ferguson & Gupta 2002:996).

So the question is- how can governmentality be understood to accommodate the apparent retreat of the state and ascent of the private sector. Possible answers can be found outside the literature of Foucaultian governmentality in the work of Paul Feyerabend (1993) and James Scott (1998). Drawing on the work of Ludwig Wittgenstein and Niels Bohr, Feyerabend argues for inquiry into specific cases rather than abstract models noting that "i[2]nstead of asking the people involved in a problematic situation, developers, educators, technologists and sociologists get their information about 'what these people really want and need' from theoretical studies carried out by their esteemed colleagues in what they think are the relevant fields. Not live human beings, but abstract models are consulted; not the target populations decides, but the producers of the models" (263). In a similar vein, Scott suggests that "today, global capitalism is perhaps the most powerful force for homogenization" (8) so that in the present study we can think of the private sector, including international corporations along with their ideological allies as the IFIs, as attempting to incorporate governments (national and sub-national) into a mentality of government that sees hydro as a way to replace the failed development strategies of the past with an eco-friendly model of development. The dynamism and creativity of the private sector can thus be harnessed to increase economic growth and reduce human poverty and misery in a sustainable fashion. But Scott also argues "the state may in some cases be the defender of local differences and variety" (8). Moreover, local resistance can take advantage of liberal democratic ideas and institutions to confront globalist homogenisation as seen in the tactic of public interest litigation used in India by opponents of large dams (Matu People's Organisation 2008).

The possibility of the state as the defender of local difference is suggestive when viewing the belated arrival of the private sector into the world of Himalayan hydroelectricity and can provide insight into the effort to build SAARC's energy ring throughout the mountains. In India, there is the contrast of the state being obligated to cancel the Loharinag Pala project despite its grim determination to complete the nearby Tehri dam. In Nepal, the state is caught between competing governmentalities – that of the private sector, the IFIs, and sustainable development, and that of the United Communist Party of Nepal (Maoist) that denies the homogenist imperatives of kinder and greener global capitalism. In Bhutan, there is little evidence of objection to hydroelectricity development as the state adopts what can be thought of as a policy of maintaining local difference opening to economic reform while in Bangladesh there is the continuing desire to connect to hydroelectricity via a quadrilateral grid.

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The analyses presented here are tentative and are suggestive of approaches that future research can take. The discourses involved in each case are complex and deserve greater inquiry than can be offered here.

Hydro in Bangladesh

Eighty per cent of Bangladesh lies in a flood plain and hence there is little potential for hydroelectricity in the country with the result that Bangladesh has not experienced the controversies over large dams as seen in its neighboring countries. Instead, Bangladesh seeks to augment its power supplies by importing hydroelectricity from Bhutan and Nepal but faces the complication that it does not share a common border with either country. As such, transmission lines connecting Bangladesh with Bhutan or Nepal must cross Indian territory and, for many years, the Bangladesh government has sought the cooperation of India to bring this about (Srivastava & Misra 2006). In 2010, Bangladesh and India signed an agreement to build a 50-mile long electricity transmission line connecting the two countries but this is not the direct connection to the hydropower sources in Bhutan and Nepal that Bangladesh would like (Bangladesh and India 2010). Bangladesh has been a strong supporter of the SAARC energy ring proposal, but solely as an importer and not an exporter of electricity, it lacks the necessary leverage to accelerate the process. Given Bangladesh's hesitant liberalisation of its electricity sector, it is not certain whether a future Bhutan–Bangladesh or Nepal-Bangladesh transmission line would involve the private sector.

Hydro in Bhutan

Bhutan's largest hydroelectric project, the Tala dam, was completed in 2006 and the Indian leader, Prime Minister Manmohan Singh, attended the dedication ceremony in recognition of India's financial support of the project. The Tala dam is classified as a run of river project but does have a storage capacity of 0.36 km^2 and was built as a joint venture between public sector companies from India like WAPCOS Ltd. and public sector companies from Bhutan such as Druk Green and the Bhutan Power Corporation. The transmission line connecting Tala to the Indian grid is a PPP that includes the Power Grid Corporation, a public sector Indian company, and Tata Power Ltd., which is a private sector firm from India (Pillai 2011).

There is virtually no evidence of any objection to the construction of Tala from any quarter. Several observers have suggested that this may be due to efforts by the government of Bhutan to cautiously pursue economic liberalisation while at the same time maintain the local difference in Bhutanese society. This mentality of government was first articulated in the late 1980s by King Jigme Singye who called it "the Middle Path of development" that implies a Buddhist path of moderation meant to encourage

economic growth while minimising environmental and social disruptions (Uddin, Taplin & Yu 2007). One method used to measure the effects of liberalisation on society is the Gross National Happiness index meant to complement the Gross National Product index, which measures economic growth. Brooks (2011:652) suggests that "rather than being eroded by modernization, there may be a synergistic relationship between development and Buddhism in Bhutan" but cautions that the question of whether Bhutan's development strategy is based on Buddhism or merely couched in religious terms needs additional empirical investigation.

Hydro in India

The Tehri dam (actually the first stage of the larger three stage Tehri Hydro Power Complex) was recently completed after three decades of objections and resistance from multiple actors. It was built by the Tehri Hydro Development Corporation (THDC), which is a joint venture between the government of India and the state government of Uttarakhand. The dam itself has been declared "an engineering marvel" that will provide clean hydroelectricity as well as provide valuable lessons on the crafting of "amicable solutions" in disputes over large dams (Adhikari 2009:26). The dam has also been condemned as a "catastrophe" (Kishwar 1995:5) in ecological, social and cultural terms. She rejects government allegations that those who oppose the dam are motivated purely by NIMBYism but instead insists they have legitimate objections.

The Tehri dam reflects the typical language used within the developmentalist mentality of government. Following the experience of building the Tehri dam, the state government of Uttarakhand has developed a policy goal to promote "a 'harmonious blend' of public-sector and private participation" that will lead to the construction of the second and third stages of the larger power complex by various PPPs over the next few years (Hydro Development 2006). Sharma (2008a) argues that the THDC has learnt from its experience in building the Tehri dam and that future projects will conduct the rehabilitation of those displaced by dams more sensitively and effectively. Sharma (2008b) further contends that all the impacts of the Tehri dam were successfully mitigated so that the benefits of the dam greatly outweigh the costs. Moreover, those people displaced by the dam are much better off in their new settlements because the company's rehabilitation plan was quite thorough. Bisht (2009) challenges this in her ethnographic study of the people displaced by the dam. In examining the material lives and perspectives of those who were resettled in the town of New Tehri, Bisht demonstrates the need to account for local difference rather than depend on the generalised assumptions common to Environmental Impact Assessments.

The Loharinag Pala project, located on the Bhagirathi River near the Tehri dam, was halted in July 2009. The public sector company NTPC had been contracted to build

the large run of river dam on the Bhagirathi River but encountered numerous objections after construction began (Mukul 2010). The justification for Loharinag Pala was that the project would provide electricity needed for economic growth and reduction of poverty. In addition, the dam would tap into India's unused potential for hydro and reduce the country's reliance on fossil fuels. NTPC argued that the social and environmental issues would be more than adequately mitigated and that the benefits of the project clearly outweigh–the impacts (NTPC 2007).

Multiple actors such as the Ganga Ahwan and Vishwa Hindu Parishad (World Hindu Council) condemned the project as merely providing electricity for urban elites while destroying "the traditional Indian ethos of worshipping nature and living in harmony with it" (Agrawal n.d.) The explicitly Hindu nature of their resistance to the dam has prompted questions about whether the anti-dam groups "genuinely seek to promote social and environmental justice through the mobilisation of various religious teachings and values" or are simply using environmental issues "to promote the chauvinist agenda of Hindu nationalism" (Mawdsley 2005:2); or to put another way, is green compatible with saffron? It is possible that this is another example of an effort to use the government to preserve local difference, but it is certainly another area where additional empirical inquiry is necessary to provide clarity.

Hydro in Nepal

As described above, the government of Nepal has sought to expand the role of the private sector in hydroelectricity development in part, to raise private and international funding for projects that will provide electricity for domestic consumption as well as for export to India. Both the West Seti and Upper Karnali proposals originated as private sector projects - by the Snowy Mountain Engineering Corporation (SMEC) of Australia for West Seti and the GMR Group of India for Upper Karnali. Both these proposals have been challenged by different groups for similar reasons. The Water and Energy Users' Federation, Nepal (WAFED) based in Kathmandu argued that the electricity generated by the West Seti dam should be consumed in Nepal instead of being exported to India since 60 percent of the Nepalis do not have access to electricity. Under pressure from WAFED, Maoists, and other groups, the government of Nepal revoked SMEC's license to build the dam in July 2011 and has decided to return the project to the domestic public sector despite an offer from the China Three Gorges Corporation to build it. With a US$1.8 billion loan from the China Exim Bank, the Nepalese government recently announced that it intended to build the dam itself (Chataut 2011; Govt Revokes License 2011; $1.6b Chinese Loan 2011).

Nepal's Maoists have also used the same objection (i.e., 60 per cent of locals do not have access to electricity) and that the Upper Karnali dam has also drawn objection

from Nepal's Maoists who argue that since nearly 60 per cent of Nepalis lack access to electricity the dam should produce power for domestic consumption rather than be exported to India. The Maoists also demand that the level of private sector involvement in the project be reduced and that of the Nepali public sector be increased in order to preserve the "sovereign right of Nepalis to their natural resources" (Sarkar 2011). On May 22, 2011 a group of people attacked the construction site and burned down three office buildings although the Maoists have denied that they were involved. Nepal's divided government has since decided to not deploy the army to provide security at the site (Parashar 2011). While the Maoists of Nepal have opted to participate in Nepali electoral politics, their approach to using government to preserve local difference draws more on the revolutionary mentality of government of Mao Zedong than that of the World Bank (Dutton 2008). This is not the first time that the Maoists have intervened forcefully to stop private sector projects that would facilitate electricity exports to India. In 2002, the then 'rebel' Maoists attacked the Jhimruk dam which was a joint venture between Intercraft of Norway and Nepal's Butwal Power Company initiated in 1994 (Norway Support 2003) and also attacked an electricity transmission line connecting three major hydro dams in late 2002, thereby interrupting negotiations between India and Nepal over electricity exports (Nepal's Hydropower Crisis 2003).

Conclusion

It is difficult to make meaningful generalisations due to the variety of localised experience throughout the region. As Erdogdu (2011) reminds us, economic liberalisation has had different impacts in different countries and there is no uniform pattern. The reform model of one country cannot simply be transferred to another and "policy makers should take into account the fact that each reform step has a specific impact in each country based on each country's specific circumstances" (1088). Local difference must be accounted for not only between different countries but also within each country. Given the disparity throughout the eastern quadrangle of SAARC, it is likely that a full-fledged cross-border grid connecting all four countries will not materialise in the near future regardless of the level of involvement of the private sector. It seems that no developmental mentality of government has yet reached a full hegemonic status.

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[1] Dr Eric Strahorn is an Associate Professor of History, Florida Gulf University, USA. Some of the research for this paper was conducted at the Library of Congress and was facilitated by the kind staff of the Asian Reading Room.

[2] The members of SAARC include Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

[3] Details of the financial arrangements for HPL and Khimti 1 can be found at SN Power's website (http://www.snpower.com/about-us/owners) and the Norfund website (http://www.norfund.no).

[4] Wickramasinghe (2001:248) argues that Public Private Partnerships rarely work as advertised as they tend to shift the risk to government but reserve the profits for private companies. Consumers are not better served and PPP projects weaken the "credibility of the reform process." The British magazine *Private Eye* has been chronicling for the last decade the failure of the local version of PPPs to deliver on the promises its supporters make.

[5] NIMBY stands for Not in My Back Yard and implies a narrow-minded parochialism that fails to appreciate the common good.

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