# "The electricity demand of Nepal's interconnected power system:"

India and the Arun-3 hydropower project

Matthäus Rest<sup>1</sup> URPP Asia and Europe/Department of Social and Cultural Anthropology University of Zurich

In 2008, the Nepalese government signed a memorandum of understanding with the Indian state-owned SJVN on the construction of the Arun-3 hydropower project. They agreed on a Build-Own-Operate-Transfer structure allocating 80 per cent of the energy generated to the foreign investor for 30 years. Subsequently, the most controversial development project in the history of Nepal was resumed. Initially, construction had started in 1990, when the dam was to be financed mainly through a World Bank loan. But after an alliance of activists started a campaign against the project and filed a complaint to the Inspection Panel of the World Bank (the only one to date that proved successful), the international financial institution decided to withdraw from the project in 1995.

SJVN is the first Central Public Sector Undertaking to bag a dam project outside India on open competition basis. Currently, the corporation is surveying several dam sites in Bhutan, while other Indian companies have started developing projects in Nepal as well. But Chinese investors show interest in Nepal's strategic water resources as well. And while people in the Arun valley predominantly welcome the renewed interest in the dam, a substantial number of activists, hydropower experts, policy advisors and intellectuals in Kathmandu are anxious about the growing Indian influence and fear a gigantic sell-out of Nepal's energy options.

On that basis, my paper will investigate the fundamental shifts in transnational infrastructure development from a "Western" donor agency-driven state-centred model to new a private-public-partnership regime involving a whole set of "emerging" actors.

When I was led into his office, Gopal<sup>2</sup> greeted me with exquisite politeness, as his two predecessors in that very office had done on my previous visits. Once again I had climbed the steep stairs to Satluj Jal Vidyut Nigam's (SJVN) Arun-3 Hydropower Project Office. The office was situated on the first floor of an inconspicuous house in the bazaar of Khandbari, the main town of Nepal's Sankhuwasabha district. It was a sedate afternoon in January 2011 and millet was spread out to dry in the sun on a bamboo matt in front of the house. Downstairs, in the Public Information Centre, I had run into Sanjay, an Indian engineer approximately my age. We had first met some weeks before in the jungle above Ghorepani where the powerhouse for the hydropower plant was supposed to be constructed. We started talking about his impressions from the trip up the valley and he told me that the biggest problem for his interaction with the people around the powerhouse construction site had been their lack of information. When I asked him if SJVN was going to change that once the Indian company would obtain an official agreement to construct the power plant from the government of Nepal, he said: "Actually I'm not the right person to comment on that. I will ask you to meet our head of office...I will take you to him." Leaving Gopal's office one hour later, I was not

<sup>&</sup>lt;sup>1</sup> matthaeus.rest@uzh.ch

<sup>&</sup>lt;sup>2</sup> All names have been changed

surprised to find my initial question still unanswered. As with most other topics we discussed, his reply was the same as his subordinate had given: "I am a civil engineer, I am not the right person to talk to about that." Still, he was eager not to answer all my questions while we had several cups of tea and what felt like two pounds of mandarins. I could not help but think of Leonard Cohen's Suzanne: "And she feeds you tea and oranges that come all the way from China." And while I knew that the mandarins in fact came from the vicinity, most probably from the villages a few hours north of Khandbari along the road towards the proposed hydropower project, the river that was to be dammed and that was the reason for our conversation really did come all the way from China – from China's Tibet Autonomous Region, to be precise.

#### The dam that wasn't there

The Arun, or Bum-chu in Tibetan, is one of the seven tributaries of the Kosi river, the so-called "sorrow of Bihar" that every few years floods big areas of the eastern Gangetic Plain of Northern India. It is one of the very few rivers in Nepal that originate in Tibet and break through the Himalayan main ridge; it therefore drains a much larger catchment area than most other rivers in the country. Despite the arid character of its Tibetan watershed, this gives the Arun a higher minimum flow than the streams originating on the south slope of the Himalayas. Therefore, it is one of the most suitable rivers for hydropower development, since in Nepal, where fifty per cent of the annual rainfall is concentrated on fifteen days, most of the hydropower plants can only run at a fraction of their potential during most of the year.

Already in 1982, a Japanese feasibility study had defined the sinuosity of the Arun near Pheksinda in the Upper Arun valley as the best location for a dam in the whole Kosi river system in Nepal and had labeled the site as Arun-3 (MoWR & JICA 1985). The project was originally designed as a 402-MW run-of-the-river hydropower plant with a fifty hectares storage lake and a twelve kilometers tunnel system to divert the water to an underground powerhouse. At this time, democratic parties were banned in Nepal and King Birendra ruled the country autocratically through a corporative structure based on traditional South Asian village councils. This regime was euphemistically called 'party-less Panchayat democracy'. When a popular uprising that came to be known as Jana Andolan (People's Movement) led to the re-establishment of multiparty democracy in 1990, pre-construction had already started, with the World Bank and the Asian Development Bank as lead donors for the 1.1 billion US dollar project – by far the largest investment ever to be made in Nepal. But as the Panchayat regime was no longer able to sustain its tight control over public opinion and the press, the first overt criticism of the project appeared in the government-owned English daily *The Rising Nepal* on 13 June 1990. That article by Dipak Gyawali (2003) stated that "the entire process of power planning and development has been hijacked by Arun-3" and gave

the starting signal for the first civil-society movement in the history of Nepal. The initial group of activists mainly consisted of foreign-trained engineers, journalists, social scientist and lawyers, some of whom had grown up in the Arun Valley. They had been active in the popular uprising of the previous months and were keen to expand their mobilization for democratic change into one of the most opaque sectors of Nepalese politics and economy: foreign-funded development. Soon they organized themselves into non-governmental organizations (NGOs), most notably the Alliance for Energy and later the Arun Concerned Group, criticizing the Arun-3 primarily for economic reasons. Doubting the country's capacity to cope with a capital expenditure twice as high as the annual budget, they strongly opposed the World Bank's 42 conditionalities tied to the loan and claimed that Nepal could generate the same amount of electricity much cheaper with four or five smaller hydropower projects in Central Nepal (ACG 1994). In 1994, the Arun Concerned Group brought the case before the newly established Inspection Panel of the World Bank. It was the first case to be examined through this mechanism. After nine months of investigation, the panel delivered a highly critical report concluding that it is "doubtful that the project's mitigatory environmental and social measures can be implemented within the time frame proposed by IDA" (WBIP 1995, 5). Within five weeks of the final report of the Inspection Panel, the newly appointed President of the World Bank James Wolfensohn decided to withdraw from the controversial project. According to World Bank staff in Kathmandu, they mentioned during interviews that he did so without further consultations in Nepal. Instead, the loan money was rechannelled into a so-called Power Development Fund that was supposed to finance the construction of other, smaller dams – although only a fraction of the money was actually spent. The other donors followed suit and the construction of the Arun-3 was frozen in late 1995 (cf. Bissel 2003). Wolfensohn's decision has to be understood in the context of the intense pressure exerted on the World Bank through a well-organized transnational campaign by a network of local, national and transnational NGOs. It accused the Bank of not taking responsibility for the often-disastrous effects of their credits and thus not being accountable to those adversely affected by its projects (Clark 2003). Both the Inspection Panel and the World Commission on Dams were created in response to the successful campaign against the highly controversial Narmada Valley Development Project in central India. The activists had shown that, contrary to the claims of the Bank, the dam would displace several hundred thousand people without a proper mitigation plan and create significant environmental destruction (Baviskar 1995; Khagram 2004). It took until spring 2008 and several unsuccessful attempts by companies like Enron or Tata, not least because of the ensuing civil war between 1996 and 2007, until the project was restarted. While the seven parliamentary parties and the Communist Party of Nepal (Maoist) were still negotiating the peace terms, the interim government under Nepali Congress veteran G.P. Koirala floated a tender for the resumption of

Nepal's most controversial infrastructure project. But the institutional circumstances for such projects had fundamentally changed between 1990 and 2008. Whereas the first incarnation of the Arun-3 was planned under the guidance of the Nepal Electricity Authority (NEA) with the government as borrower and with the intention of satisfying the growing electricity demand within the country, the recent attempt is guided by a completely different logic: the framework of private-public-partnerships. Now the project will be financed and built by the Indian state-owned SJVN in return for the better part of the generated energy that will be exported to India. So, one of the main paradoxes in the history of the Arun-3 is how a dam supposed to secure the domestic electricity supply was transformed into an export-oriented project that will be built by a foreign company. Added to this is the fact that Nepal is suffering from a severe power shortage that leads to up to fifteen hours of outage every day during winter. This of course is only true for the forty per cent of the households that are connected to the national grid. Due to that, all Nepalese hydropower experts I talked to during the last three years oppose this new arrangement.

In this paper, I want to use the Arun-3 project as an entry point to take a closer look at the changing character of Indian bilateral assistance and foreign aid. Drawing on discussions I had with staff from SJVN over the last three years I will argue that they reframe their company's acquisition of water resources abroad as a form of contribution to their neighbour's development. They do this in a similar vein to what Cori Hayden (2007) has recently called "taking as giving" in the context of biomedical research and pharmaceutical testing. I will show that the engineers' understanding of development as benevolence is very much in line with the self-representation of the Indian state as an emerging donor. First, though, allow me to briefly contextualise the concepts of Build Own Operate Transfer and public-private-partnership.

#### Build, Operate (Own) and Transfer

The memorandum of understanding between the government and SJVN from March 2008 states that the Indians will build the power plant, the access road and the transmission line at their own account while the government will procure the necessary land and hand it over to the company. In return,

SJVN agrees to provide 21.9...percent of monthly generated power and energy from the Project...free of costs...GoN [Government of Nepal] agrees to grant the licenses for generation and transmission of Electricity to SJVN for the development and operation of the Project for a period of thirty years...SJVN shall...handover the ownership of the Project to the GoN, free of cost, at the end of such period. (MOWR & SJVN 2008, 3-7)

In the discursive realm of "new public management" such an arrangement is called BOOT: Build, Own, Operate and Transfer – or as e.g. Bengt Hallmans and Christer Stenberg (1999) spell it: Build, Operate (Own) and Transfer. In their understanding, in a BOOT contract,

normally an organization acts on behalf of a public entity to provide service to the customers for a specified period of time...BOOT type projects combine the design, financing, construction and operation into one undertaking as a private sector initiative. They are normally organized as a joint venture in the form of a concession company involving engineers and architects, contractors or developers...and an operator (110).

BOOT is one of the four basic categories of public-private partnership (PPP) financing models. According to Jane Broadbent and Richard Laughlin (2004) the term PPP was developed in the UK and introduced in 1997 following the election of Toni Blair. The Labour government localized these arrangements in the context of the "Third Way," but the basic framework had already been initiated by the Conservative government in 1992 "in response to a shortage of resources for infrastructure investment" (6). Hans Van Ham and Joop Koppenjan (2001, 598) formally define PPP as "cooperation of some sort of durability between public and private actors in which they jointly develop products and services and share risks, costs, and resources which are connected with these products." Graeme Hodge and Carsten Greve (2010), on the other hand, claim that the definition of PPP remains cloudy and commentaries on the topic tend to be highly polarized. While its advocates see it as a new governance tool and hail it as "the main alternative to contracting out and privatization" (Hodge & Greve 2007, 545), critics understand it merely as a language game that is only used to avoid exactly these contentious terms by replacing them with the more inclusive grammar of partnership (cf. Linder 1999). Apart from that, recent research has relativized the claim that cooperation between the public and the private sector is something new and specific to late liberal circumstances by reminding us on historical examples of partnership. Roger Wettenhall (2003, 92) mentions the fact that "163 out of 197 vessels in Drake's fleet which defeated the Spanish Armada in 1588 were privately owned, serving under contract to the Admiralty" while Gautam Pingle (2011) reports a BOOT arrangement for the water supply of Fort Saint George in Chennai between the British East India Company and a certain Captain George Baker in 1771. Speaking of this very company, I believe that a big part of the history of European colonialism in South and South East Asia can in fact be read as a manifestation of early modern PPP – with authorities for the private parties that exceeded those in contemporary contracts by far.

#### India as emerging donor?

SJVN is a joint-venture of the governments of India and Himachal Pradesh. It operates the currently biggest hydropower plant in the country, the Nathpa Jhakri dam in Himachal. With the Arun-3 project, it was the first public sector enterprise to bag a dam contract abroad on open

competition basis. According to their website, ten more projects in India, Bhutan and Nepal are under way, while company representatives also mentioned negotiations for contracts as far afield as Georgia or Panama. While the implementation of infrastructure development through state-owned companies is a characteristic of recent shifts in Indian foreign aid policy, the engagement with development in Nepal has a longstanding tradition – the first grant was already given in 1958. Therefore, one could argue, contrary to recent literature on Indian foreign aid, that India is not an emerging donor at all. But of course, on the other side, only recently has it changed its own status from a recipient to a donor country. As Subhash Agrawal (2007) reminds us, in the mid-1980s, India was the World's largest recipient of foreign aid. Now foreign aid constitutes less than half a per cent of the gross domestic product.

But the actual amount of development assistance that India provides is difficult to estimate, as there are not even official numbers. Neither the Ministry of External Affairs nor the Ministry of Finance maintain records and often money is channelled through other institutions as well – as for example in the case of SJVN's hydropower development. To focus its development efforts, the Minister of Finance proposed to create a central aid agency similar to the British Department for International Development (DFID) or the United States Agency for International Development (USAID) in 2007 tentatively titled Indian International Development Corporation Agency (ibid: 14) or Indian Agency for Partnership in Development (Roy 2010). The Ministry of External Affairs further developed the plan for the following three years but dropped the idea in 2010 after strong objections from the Department of Personnel and Training (ibid.). Historically, the bulk of Indian foreign aid has been spent on Bhutan and Nepal, followed by its other neighbouring countries. But during the last ten years, both the assistance for Afghanistan as well as the engagement in different African countries has increased manifold. And while aid in Nepal, Bhutan and Afghanistan is mainly devoted to infrastructure, in Africa the bigger part of the money is spent on training programs for civil servants, engineers and public sector managers. Beyond that we can witness an increasing rivalry with China for African oil reserves. Recent hydropower contracts and a change in Chinese foreign policy in Nepal indicate that a similar competition might start here as well. Indian officials are very keen on maintaining that their development assistance is all about southsouth cooperation and mutual benefit – contrary to the intentions of other donors, as they say. In a recent newspaper article, Biswajit Dhar who is the director of the Delhi-based Research and Information System for Developing Countries, stated:

Donors' clubs like the OECD have attached conditionalities to the assistance they offer. Some countries are known to use aid to further their commercial interests. Countries like India have been opposing these conditions. While the OECD countries have been talking of the effectiveness of the aid, India, for example, has stressed on development effectiveness (Roche 2012).

Whenever I had the opportunity to talk with staff from SJVN about the Arun-3 project, they would as well uphold the priority of good relationships with their neighbours over the sole economic viability of the projects in question. Often, they maintained that not only SJVN, as a state-owned company, has an ethical obligation to development in South Asia but also they themselves as civil engineers where there to help. One of them told me: "When I walk up to the dam site and see the children playing in the dirt, my eyes are filled with tears." In line with leading Nepalese politicians they stress the advantage of the BOOT agreement for the country. And when I doubted the purely economic intentions when an Indian state-owned company is constructing a dam 30 km south of the Chinese border in one of the few valleys that break through the Himalayan main ridge and thereby facilitate easy transit between India and Tibet, they strongly denied any geo-strategic dimension to their activities abroad.

## "Damn stupid"

As already mentioned, the majority of directly affected people in the villages around the dam site were in favour of the project in the 1990s and they still are (cf. Rest 2012). Even when asked whether they approve of the fact that an Indian company will construct the dam, most of my interlocutors see no particular problem. As Hari put it:

Our concern is not so much with the company as with the Nepali government. We don't care if the company is Indian or American, we need security that the government will compensate our losses.

This came as a surprise to me as many people in Nepal hold very strong anti-Indian resentments. During the rule of the Kings' Panchayat system from 1959 to 1990, anti-Indian rhetoric was one of the main instruments to establish a Nepalese patriotism and since the 1990s, different democratic parties have utilized that sentiment for different purposes, most notably and consistently the Maoist movement – one of the 40 demands that were posed before they officially declared their insurgency in 1996 was to ban all Indian movies from Nepalese cinemas.

Talking to energy experts, former bureaucrats and hydropower activists in Kathmandu, the answers showed a completely different picture. Among these, not a single person I talked to is in favour of the current arrangement with SJVN, many of them seeing the BOOT contract as an attack on the "national interests" of the country and fearing a gigantic sell-out of hydropower options in the coming years. Bipin summarized their position as follows:

Arun-3 is for export to India, when we have an energy crisis in Nepal. So, neither am I against export per se – no, export is not forbidden, but it is damn stupid to be exporting power when you have an energy crisis in your country.

But at the moment, this small group of academics stands pretty much out on a limb. While during the 1990s, there was substantial support from the general public for the campaign against the

Arun-3, the long hours of outage have taken their toll and so today there is hardly any space for civil society mobilization against the newly proposed hydropower projects. Therefore, most of their activities are concentrated on legal action. When I was talking with Bipin in December 2011, he had recently lost a cause before the Supreme Court against the second controversial major dam project in Nepal: West Seti. At that time, WAFED, the *Water and Energy Users' Federation* had just field a case against Arun-3, basically on the same grounds as Bipin's appeal: Both were claiming that the tendering of the two projects to foreign companies by the Ministry of Water Resources without consent from the parliament had been unconstitutional because of paragraph 156 of the interim constitution. That provision states that the ratification of treaties related to "natural resources and the distribution of their uses" require a two-thirds majority from parliament<sup>3</sup>:

In the case of West Seti, our case was stronger, because it's a reservoir project, which will generate an augmented flow during dry season. Arun-3 doesn't do that, unfortunately. Therefore, it is relatively weaker, but still: the principle of sharing, if you look at the constitutional provision, the wording is: "Agreements and treaties related to natural resources and sharing in use of it." By exporting electricity, Nepal is going to share electricity generated from using the water resource...I still believe, even in the case of Arun-3, the parliament ratification is mandatory, but we have lost in the West Seti case, so our case is a lot weaker in Arun-3...unfortunately.

But the Supreme Court followed the argumentation of the ministry and the NEA that frames the whole issue in a totally different logic and is somehow reminiscent of Marcel Duchamp's old saying: "There is no solution because there is no problem." Licensing hydropower projects to foreign companies, the bureaucrats claim, is not related to the distribution of natural resources at all. As the water itself is not altered, traded or redistributed, they argue, these contracts are only concerned with the cross-border traffic of electrons. But, as electricity is the energy that is stored in the movement of these electrons while they themselves are not depleted through the consumption of electricity, in the end no natural resources are shared with a foreign company (Conversation with Bipin 4 Feb. 2010). The government (and depending on its current composition the official position of the parties

<sup>&</sup>lt;sup>3</sup> §156 provides:

<sup>(1)</sup> The ratification of, accession to, acceptance of or approval of treaties or agreements to which the State of Nepal or the Government of Nepal is to become a party shall be as determined by the law.

<sup>(2)</sup> The laws to be made pursuant to clause (1) shall, inter alia, require that the ratification of, accession to, acceptance of or approval of treaty or agreements on the following subjects be done by a two-thirds majority of the total number of members of the Legislature-Parliament existing:

<sup>(</sup>a) peace and friendship;

<sup>(</sup>b) security and strategic alliance;

<sup>(</sup>c) the boundaries of Nepal; and

<sup>(</sup>d) natural resources and the distribution of their uses.

Provided that if any treaty or agreement referred in the sub-clauses (a) and (d), is of ordinary nature which does not affect the nation extensively, seriously or in the long-term, the ratification of, accession to, acceptance of or approval of such treaty or agreement may be done at a meeting of the Legislature-Parliament by a simple majority of the members present.

belonging to it), on the other hand, argues with economic constraints that make hydropower development without foreign direct investment impossible at the moment. Above that, they claim that these agreements are actually highly favourable for the citizens of Nepal, as they will be "given" hydropower plants free of charge – only with the slight delay of thirty years. Otherwise put, they argue that one day the current suffering of load shedding "will have been resolved" without the need to pay for it. According to Elizabeth Povinelli (2011), this specific argumentation from the temporal position of a future anterior is inherent in many recent discussions, e.g. on the recognition and suffering of indigenous groups in Australia. She argues that these discussions produce "economies of abandonment" in which those who are talked about "are left in a durative present where they are assured of both an imminent future where past injustices will be righted and a future where present unjust measures of social control will continue indefinitely" (Webber 2008).

### Taking as giving

Confronted with these accusations, the Indian engineers often complain about the highly politicized atmosphere of hydropower development in Nepal. Gopal, the engineer from SJVN, lost his temper only once during our extended teatime – when I confronted him with the activists' stance that the memorandum of understanding between his company and the government was against national interest. He replied:

Nonono, it is not against national interest! It is very good for Nepal also...We are giving 29.5 [!] per cent<sup>4</sup> of electricity free of cost to them, which is nearly 200 MW [...] and indirect employment to the people there and other development works we will be able to carry out, we will do R&R [resettlement and rehabilitation] and environmental...we have to do all the work [...] development of schools and all that, panchayat and all that. We have to do that for culture, uplift of people, uplift of living standard of the people also...business will come to the people of this area.

Whenever I was talking with SJVN employees about the hopes of affected people, they were very keen on describing the serious commitment of their company to benefit-sharing. But when I asked Gopal about SJVN's opinion on the claim that the local people should become shareholders of the dam or at least that the company should provide them with free electricity he was not happy either:

The expectation of the people is very high [...] Company will come and give us this, they will give us free power from the stock -how we can give? How? It is not possible [...] Everybody wants something from us: 'give me toilet, give me this, give me that'...schools, hospitals.

I had heard calls for such an arrangement from water activists in Kathmandu and, even more urgently, from the ethnic activists of the Yamphu Kirat Samaj. This organization represents the

<sup>&</sup>lt;sup>4</sup> As mentioned, the memorandum of understanding allocates 21.9 per cent of the generated electricity to the government.

political and cultural demands of the Yamphu Rai, a small indigenous group in the Upper Arun valley. They predominantly live in the six villages that surround the proposed dam site of the Arun-3 project and constitute the majority of inhabitants in all of those settlements. Cori Hayden (2007) discusses similar issues in her work on the changing practices of gathering participants for biomedical research from an idiom of altruism to one of benefit-sharing. Until recently, she argues, the altruistic, non-commercial interest of people who participated in clinical studies was considered 'normal' ethical practice and above that a necessary pre-condition for their scientificity. But with the increasing visibility of profits and the rise of global discourses on communal rights to natural resources, plants and genes, benefit-sharing emerges as a new ethical principle. However, as with the Arun-3, these contracts are not about assigning property rights as it is "much more common to find recourse to a wide range of other idioms of return such as donation, incentive, up-front payments or access fees, or technology transfer – none of which require, assume, or produce rights claims" (743). Hayden argues that the idiom of benefit-sharing legitimates "the understanding that biomedical research is explicitly a process of resource extraction and value production [...] by turning takings into promises of giving back" (746).

As I have tried to show, the idiom of benevolence is deeply inscribed in the rhetoric of the Indian engineers as well as the official self-representation of the Indian state as emerging donor while its geo-strategic and economic interests are persistently downplayed. But this picture is not shared by activists and energy experts in Kathmandu who see the Indian development efforts as a vast appropriation of the only natural resource Nepal has. They frame their opposition in strongly nationalist terms that shed a light on the highly complex relationship between the two countries that reaches back to the rebellion of 1857, when the King of Nepal sent troops to support the British.

The controversy around the Arun-3 dam is far from over. Every time I talk with SJVN staff they assert that their company will construct the dam no matter what and that the Detailed Project Agreement will be signed in the following three weeks – I have heard this exact wording since January 2010. In fact, it is highly unlikely that a contract like this will be signed anytime in the near future – as long as there is no new constitution with clear provisions on the topic of foreign investment in the exploitation of water resource, no government will dare to do so.

## **Bibliography**

ACG, 1994. Arun-III: an Introduction and Issues of Concern, Kathmandu: Arun Concerned Group.

Agrawal, S., 2007. Emerging Donors in International Development Assistance: The India Case.

IDRC Canada. Available at: www.idrc.ca/EN/Documents/Case-of-India.pdf [Retrieved 10 August 2012].

Baviskar, A., 1995. In the Belly of the River: Tribal Conflicts over Development in the Narmada Valley, New Delhi: Oxford University Press.

Bissel, R., 2003. The Arun III Hydroelectric Project, Nepal. In D. Clark, ed. Demanding accountability: civil society claims and the World Bank Inspection Panel. Lanham: Rowman & Littlefield Pub., 25–44.

Broadbent, J. & Laughlin, R., 2004. PPPs: Nature, Development And UnansweredQuestions. Australian Accounting Review, 14(33), 4–10.

Clark, D., ed. 2003. Demanding accountability: civil society claims and the World Bank Inspection Panel, Lanham: Rowman & Littlefield Pub.

Gyawali, D., 2003 (1990). Arun-3 Impasse: Is there an escape from this blind alley? In Rivers, technology and society: Learning the lessons of water management in Nepal. Kathmandu: Himal Books.

Hallmans, B. & Stenberg, C., 1999. Introduction to BOOT. Desalination, 123(2-3), 109–114.

Van Ham, H. & Koppenjan, J., 2001. Building Public-Private Partnerships: Assessing and managing risks in port development. Public Management Review, 3(4), 593–616.

Hayden, C., 2007. Taking as Giving: Bioscience, Exchange, and the Politics of Benefit-sharing. Social Studies of Science, 37(5), 729–758.

Hodge, G. & Greve, C., 2010. Public-Private Partnerships: Governance Scheme or Language Game? Australian Journal of Public Administration, 69, S8–S22.

Hodge, G. & Greve, C., 2007. Public-Private Partnerships: An International Performance Review. Public Administration Review, 67(3), 545–558.

Khagram, S., 2004. Dams and Development. Transnational Struggles for Water and Power, Ithaca & London: Cornell University Press.

Linder, S., 1999. Coming to Terms With the Public-Private Partnership: A Grammar of Multiple Meanings. American Behavioral Scientist, 43(1), 35–51.

MoWR & JICA, 1985. Master plan study on the Kosi river basin for water resources development. Main report and annexes.

MoWR & SJVN, 2008. Memorandum of Understanding between The Government of Nepal, represented by Ministry of Water Resources and Satluj Jal Vidyut NigamLimited concerning the Execution of Arun-3 Hydropower Project in Nepal. Available at: http://www.moen.gov.np/ [Retrieved 10 August 2012].

Pingle, G., 2011. 18th century Madras -A study in BOOT. Business Standard. Available at: http://www.business-standard.com/india/news/gautam-pingle-18th-centurymadrasstudy-in-boot/431623/[Retrieved 10 August 2012].

Povinelli, E., 2011. Economies of abandonment: social belonging and endurance in late liberalism, Durham: Duke University Press.

Rest, M., 2012. Generating power: debates on development around the Nepalese Arun-3 hydropower project. Contemporary South Asia, 20(1), 105–117.

Roche, E. 2012. India goes from aid beneficiary to donor. Mint. Available at: http://www.livemint.com/2012/07/02084130/India-goes-from-aid-beneficiar.html?atype=tp [Retrieved 10 August 2012].

Roy, S. 2010. MEA drops aid agency plan as DoPT objects. The Indian Express. Available at: http://www.indianexpress.com/news/mea-drops-aid-agency-plan-as-dopt-objects/619838/0 [Retrieved 10 August 2012].

The Inspection Panel, 1995. Proposed Arun III Hydroelectric Project and Credit 2029-NEP. Investigation Report, Washington, D.C.: International Bank for Reconstruction and Development/International Development Association: The Inspection Panel.

UNDP Nepal, 2008. The Interim Constitution of Nepal, 2063 (2007)

Webber, M., Wanting it Now: Academic Composition and Returning to the Theory/Practice Question. Kritik. Available at: http://unitcrit.blogspot.com/2008/07/wanting-it-nowacademic-composition-and.html [Retrieved 10 August 2012].

Wettenhall, R., 2003. The Rhetoric and Reality of Public-Private Partnerships. Public Organization Review: A Global Journal, 3, 77–107.