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Review of:

Shoemaker & Robichaud (eds.): *Dead in the Water—Global Lessons from the World Bank's Model Hydropower Project in Laos*. University of Wisconsin Press, 352 pp. 2018.

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The Mekong River basin in Southeast Asia is the target of massive plans for hydroelectric dams, now largely to be financed by China, Thailand and Vietnam. These have disastrous consequences for the large traditional populations that have lived along the Mekong and its tributaries for millennia and depend on the rich fisheries resources these rivers offer, in what is generally considered to be the world's largest inland fishery. The notorious Pak Mun Dam in Thailand was the first, wiping out fisheries in one of the Mekong's largest tributaries and leaving a trail of social and environmental destruction that, together with other dam disasters around the world, contributed to a significant tarnishing of the World Bank's reputation in the 1990s. Enter the Nam Theun 2 (NT2) project, billed as a model dam of "global significance" that would demonstrate to the world that large tropical dams could be done right and thus break the hiatus on large dam financing that had resulted from the criticism of previous Bank-financed dams. NT2 was also trumpeted by the dam industry's International Hydropower Association (IHA) as an example of "sustainable hydropower" in a remarkably successful effort to revitalize plans for large dams.

NT2 was promoted as the key to creating and maintaining a major protected area in one of the world's richest biodiversity hotspots. At the time the dam was being planned it still contained the saola (*Pseudorxy nghetinhensis*), a rare and highly threatened deer-sized creature that surprised the world when the existence of an unknown mammal of this size was discovered in 1992. Rather than a national treasure, Laos saw the saola as a threat to its plans at NT2; through a perverse series of effects, NT2 also inhibited international funds from working in Laos to save this species there (pp. 170-72). Another rationale for NT2 was that the revenues from sale of electricity to Thailand would be used to alleviate poverty in Laos, which is one of the world's poorest countries. This would also not happen: the revenue goes into the government's general budget, and only 11% of the government's expenditure on poverty alleviation comes from its own budget, the rest coming from international donors (p. 210).

The history that unfolded is recounted in the chapters of this book, and reading it will demonstrate to anyone that this "model" project was indeed a major disaster. It has lessons not only for the World Bank and similar institutions, but also for a vast array of government agencies, companies, consultants and academics involved in projects for dams and for large infrastructure in general. The bottom line is that the rationales for the World Bank and the many organizations and individuals that participated in the project were essentially based on wishful thinking. Many would later regret their participation. The conclusion to be drawn is that it is time to stop building more tropical dams and invest instead in alternatives, beginning with using less electricity followed by the expansion of lower-impact sources such as solar and wind power.

NT2 is indeed “of global significance,” but not in the way the World Bank and others have promoted it. Instead, this dam is the source of great deception and an example of things to be avoided. There is a natural tendency for project proponents and host country governments to promise whatever an institution like the World Bank wants to here, even if there is no real interest in keeping these promises.

The odds were clearly stacked against the promises being kept, a fact that was clear to many outside observers from the start. Laos has an authoritarian government and harshly represses any form of dissent or criticism. Foreign NGOs and individuals are also cowed by this and are expelled for saying anything perceived as critical. The fact that Lao NGOs are virtually nonexistent means that the country has no organized civil society that provides individuals who are dedicated to solving social and environmental problems. Ironically, the lack of freedom made Laos attractive for the Bank and corporate investors as a site for this and other dam projects because local resistance is unthinkable and negative press coverage is minimized (in contrast, for example, to the Bank’s experience in Thailand). The promises to implant a model program for resettling and restoring livelihoods of affected people, to guard the protected area against invasion by loggers, hunters, wildlife traffickers and others, and to use the revenues for poverty alleviation basically came to naught.

Laos is one of the world’s most corrupt countries according to Transparency International. Underlying problems such as the lack of interest in environmental and social problems by relevant agencies and the bulk of individual employees could not be overcome by giving more money to these agencies. Curiously, this approach even backfired: high salaries intended to attract dedicated and talented environmental professionals instead resulted in these positions being occupied by individuals with good connections (p. 167). The power company was also a poor bet for mitigating the impacts because social and environmental issues are not the core mission of private companies, which are logically focused on minimizing costs and maximizing profits. While individuals within the World Bank and the various companies and government agencies were genuinely concerned about the dam’s social and environmental impacts, the dominant forces within these organizations had other priorities.

The NT2 story revealed that the World Bank was most interested in the client government and the private sector, not the people or the environment (p. 202). Even the purely financial logic of the Bank’s decision making was circumvented to attend to these other priorities. Bank regulations oblige it to compare proposed projects to other alternatives, including a “no build” alternative, and to only support the “least cost” option. By far the cheapest option was “no build” plus demand-side management in Thailand (p. 259). The companies investing in NP2 received (for free) a potentially very costly political risk insurance policy from the World Bank, guaranteeing the companies’ profits against virtually any potential loss. This has become the financial model for future dams. Separating profits from responsibilities means that no project would too risky, no matter how environmentally or socially damaging it may be (p. 264).

The 13 chapters are grouped into three parts: “The World Bank promotes a new model of hydropower,” “Social and environmental context and outcomes,” and “Nam Theun 2’s wider legacy.” The first part recounts the history of both international funders like the World Bank and of the international non-governmental organizations (INGOs). Three major INGOs collaborated with and were contracted by the NT2 project: CARE,

the World Conservation Union (IUCN) and Wildlife Conservation International (WCS). These endorsed the project early on, but later came to regret their involvement. Other groups opposed the project throughout. The early endorsement of the project by the three collaborating NGOs was a key factor in lending legitimacy to the World Bank's quest for project approval by its Executive Board and for obtaining complementary funding from other sources. The regional NGOs that participated in a World Bank-organized "public consultation" would later conclude that they had been used by the Bank to lend legitimacy to the project without having any real effect on the unfolding catastrophe. There was wide agreement that "their participation meant little, that they were being used in a stage-managed way to prop up a decision that had already been made" (p. 80). The Independent Panel of Experts that accompanied the project for 19 years (1997-2016) gave a key early endorsement, but in later years the panel became highly critical of the project. Particularly telling was the effect of the panel's over 20 visits to NT2 on Thayer Scudder, a member of the Panel and a renowned expert on social impacts of dams who initially had high hopes for NT2. In a 2014 op-ed in the *New York Times* he concluded, based on NT2, that "large dams are ... not worth the cost". (p. 225), and, at the end of his long career searching for "one good dam," he considered NT2 to be his "final disappointment" (p. 54).

As one who lives in Amazonia, I see many parallels with the history of NT2. One of immediate relevance is the company's successful maneuvers to circumvent requirements for reservoir clearance. At NT2 "according to a source close to the project, at the time biomass clearance was pending, NTPC [Nam Theun 2 Power Company] staff and Électricité de France (EdF), the largest NTPC shareholder, provided misleading information to the GoL's [Government of Laos's] Science, Technology and Environment Agency in order to avoid the time and expense of full clearance" (p. 117). Today in Brazil the same French electricity company is accused by public prosecutors of exactly the same thing at the Sinop Dam, and a fish dieoff from lack of oxygen in the river below the dam during reservoir filling in February 2019 is the subject of a Brazilian federal court case (<http://mongabay.org/2019/03/brazils-sinop-dam-flaunts-environmental-legislation-commentary/>).

Another universal problem is the tendency of consultants hired by the project proponents or by the World Bank to give recommendations that their patrons would like to hear, even if detrimental to the environment and to local peoples. An example is an anthropologist consulting for the Bank who concluded that the Brou people living downstream on the river to which water from NT2 was diverted were "assimilated" and therefore not indigenous, thus relieving the World Bank and the Lao government of conforming to World Bank safeguards for indigenous peoples (p. 197). There are many examples of consultants elsewhere in the world providing advice that coincidentally reflects the interests of project proponents, Brazil's Sinop Dam providing a recent example.

The way that the World Bank's financing role played out at NT2 also has many parallels. One is the fact that the dam was built on schedule while the social and environmental components lagged far behind, resulting in impacts far different from the Bank's expectations when launching what it thought was a "model" project (p. 301). The classic case is the POLONOROESTE project in Brazil that opened large areas of Amazon rainforest to migration by reconstructing a highway in the early 1980s. Although billed by the Bank as a "model" project, the road construction came first, and

a television exposé of the resulting devastation shown on the “Sixty-Minutes” television program in the US led directly to creation of the World Bank’s Environment Department. Obviously, the lesson of expecting mitigation measures and infrastructure construction to happen simultaneously was not learned for NT2 and other Bank projects.

Another commonality is the environmental destruction and sacrifice of local livelihoods for the benefit distant beneficiaries in another country, in this case Thailand (p. 212). All planned dams in Laos are for power export, since the country already produces much more electricity than it uses. In the words of Thayer Scudder, the government of Laos “wants to build 60 dams over the next 20 or 30 years, and at the moment it doesn’t have the capacity to deal with environmental and social impacts for any single one of them” (p. 225). The impacts of dams befalling the people and environment of one country while the benefits are exported to another is a pattern represented by plans for dams to be built by Brazil in Peru and Bolivia to export power back to Brazil. In both the Southeast Asian and the South American cases, part of the attraction is that licensing processes are laxer and faster in the host countries as compared to the countries importing the electricity.

The dilemmas facing international sources that fund dams and their mitigation are well illustrated by NT2. One is the “China factor,” which underlay much of the initial thinking at the World Bank, collaborating NGOs and the Panel of Experts (p. 38). This is the argument that if the Bank doesn’t fund this project then the Chinese will, and the outcome would be much worse. Another is the dilemma continually confronting international donors in the environmental and social areas: should they step in to pay for alleviating consequences of destructive projects where the countries promoting the projects (and that therefore should be paying for the full cost of mitigating the project impacts) are only willing to spend their money for the physical infrastructure itself. The project investors and the host country would rather invest whatever funds they have in the next dam and leave the tab for the previous disaster to international non-profits. Finally, the book suggests that “fundamentally, it may be a nonstarter to use environmental destruction as a vehicle for environmental protection” (p. 177).