



## **Thai-Lao Hydro Projects Should Meet International Standards**

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Laos’ plans to become the “battery of Southeast Asia” are now well known. There are six large hydropower plants operating in Laos today. According to the latest figures from the Lao Ministry of Energy and Mines, four projects are under construction and five to ten more are at advanced planning stages. The Lao government has announced its intentions to attract enough foreign investors to build close to 30 new dams by 2020.

Thailand is still the biggest consumer of Lao hydroelectricity. New power purchase agreements for four hydro projects, totaling almost 1,500 megawatts, are expected to be signed between Thailand and Laos before the elections. Thai companies, such as the Electricity Generating Company of Thailand (EGCO), Ratchaburi and GMS Power, are some of the main dam builders in Laos. And Thai financial institutions, including Thai Exim and private banks, are also important players.

Recognizing the significance of this bilateral relationship, in September, officials from Thailand and Laos gathered with the World Bank at a High-Level Forum on Sustainable Hydropower Development to affirm the need for environmental and social standards for hydropower projects. This was an important dialogue at which commendable commitments were made by both countries. The Thai Energy Ministry, project developers, financiers, and the Electricity Generating Authority of Thailand (EGAT)

acknowledged their responsibility to ensure that the Lao dams they support meet international environmental and social standards.

Across the Mekong, the Lao government affirmed the importance of strengthening its regulatory institutions and policies to secure maximum benefits for Lao people. This follows on the Lao government's adoption, in 2005, of a National Policy on the Environmental and Social Sustainability of the Hydropower Sector.

Yet with the number of proposed dams and the track record of past projects, there are significant risks that these commitments won't keep pace and be translated into timely action. Environmental and social standards are important, but implementation is key. Right now, Laos's largest project, Nam Theun 2, is facing a number of challenges in that regard. I've just visited the project area and will briefly highlight some key issues. Erhard Floether will elaborate further in his presentation, and we'll be happy to answer questions or provide more details during the discussion.

Downstream, the Nam Theun 2 project will cause food and income losses for more than 120,000 people who depend on the Xe Bang Fai and Nam Theun rivers. Fish, a staple food item, will decline. There will be more flooding which will likely impact people's ability to grow rice. There will also be increased erosion along parts of the river and water quality problems.

Implementation of Nam Theun 2's Downstream Livelihood Restoration Program has been initiated in only about 20 percent of the more than 220 villages that will be affected in two years when power production begins. Nam Theun 2's official monitors, the Panel of Experts, state in their September 2007 report: "The problem [with the Downstream

Program] at this point is that many of the impacts of the project will be felt well before comprehensive counter measures are in place” (p. 33). The Panel of Experts also points to the program’s short and long term funding gap; the protein deficiency that is likely to emerge when fish supplies decrease; and notes that “the existing programs do tend to look more like a series of essentially unrelated if useful sub-projects than the product of a coherent plan” (pp. 34-35).

Furthermore, the Nam Theun 2 Power Company and the Lao government have still not reached an agreement on biomass clearance from the reservoir area. Time is running out, with just over four months remaining before the onset of the rainy season and reservoir impoundment. While the high-value timber has been removed, additional biomass clearance is critical to minimize water quality problems in the reservoir and downstream, and reduce greenhouse gas emissions from the reservoir.

Resettlement on the Nakai Plateau has also suffered from significant delays, although progress has been made in the construction of resettlement infrastructure in the last several months. But the key question remains: how will these 6,200 resettlers feed their families and earn an income when two-thirds of the land they used for farming, animal-grazing and collecting forest products is under water?

And Nam Theun 2 is just one of four existing or proposed dams in the Nam Theun-Nam Kading river basin. About 40 kilometers downstream from Nam Theun 2, the Thai-Norwegian Theun-Hinboun Hydropower project has been generating electricity for Thailand since 1998. A report released last month by Norwegian NGO FIVAS details increasingly severe flooding along the Hai and Hinboun Rivers over the last nine years, largely due to water releases from the project. Around 30,000 people have suffered

declines in fish and other aquatic resources, for which the company has paid no compensation. They have also been forced to abandon their paddy fields due to the repeated loss of wet season rice crops. The flooding has caused water contamination, skin diseases, drinking water shortages, death of livestock from drowning and disease, and other temporary food shortages.

Yet the project's operators, Statkraft and GMS Power of Thailand, are now proposing an expansion to account for the reduction in flows caused by Nam Theun 2's development upstream. The Theun-Hinboun Expansion Project would double the diversion to the Hai and Hinboun, making life for tens of thousands of people living along those rivers increasingly intolerable. This new project does not include adequate measures to mitigate the flooding and erosion problems, nor does it provide compensation to address villagers' past – and ongoing – losses.

The Theun-Hinboun Expansion Project is one of the four power purchase agreements with Thailand that are expected to be signed by the end of this year. But it should not go forward until and unless the Company has resolved the problems with the existing project. Murray Watson will discuss these issues in more detail.

Another one of these four projects, the Nam Theun 1 dam, would be built downstream from Nam Theun 2 and Theun-Hinboun, just about 30 kilometers from the Mekong confluence. This Thai-Malaysian dam sponsored by Gamuda and EGCO would be built in the middle of Laos' remote Nam Kading National Protected Area, in an area classified by conservation organizations as one of 35 global biodiversity "hotspots". Its reservoir would effectively divide the protected area in two, destroying large swathes of riverine and terrestrial wildlife habitat. Hunting and poaching pressures are already on the rise;

and even before an environmental impact assessment has been approved, roads constructed for the project have reached the national park. Reports indicate that more than 3,500 people will be displaced to make way for Nam Theun 1, and that communities downstream can expect decreases in water flows, water quality, and fisheries. Nam Theun 1's economic viability has also been questioned, especially considering the development of the Theun-Hinboun Expansion Project upstream.

Given Nam Theun 1's significant social and environmental costs – many of which simply cannot be mitigated -- this project undermines the sustainable hydropower pledges made by the Thai and Lao governments in September. The Theun-Hinboun Expansion Project, with its failure to address the legacy of downstream livelihood losses, also fails to meet these standards.

Committing to and implementing high social and environmental standards benefits all parties. It reduces the financial and reputational risks for Thai project developers and their financial backers. It shields the Thai government from criticism that it has externalized the social and environmental costs of its energy consumption to its Lao neighbors. Most importantly, it reduces the potentially devastating effects of these projects on Lao people and the threat they pose to the Lao government's poverty reduction plans. New hydropower projects that fall short of these standards, such as the Theun-Hinboun Expansion Project and Nam Theun 1, should be dropped.