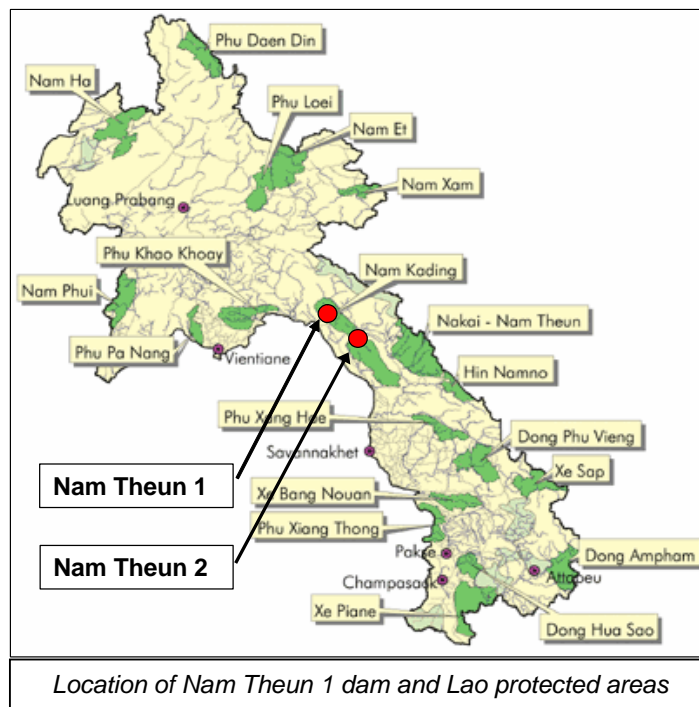


## ***Nam Theun 1: Overview of key issues***

The Nam Theun 1 hydropower scheme, under development by the Electricity Generating Company of Thailand (EGCO) and Gamuda of Malaysia, is at an advanced stage of planning and, if built, would incur significant social and environmental costs. The dam site is located downstream from the Nam Theun 2 and Theun-Hinboun dams, approximately 30 kilometers from the Mekong River confluence. Nam Theun 1's electricity is planned to be exported to Thailand. It was reported in November 2007 that the project's Power Purchase Agreement with the Electricity Generating Authority of Thailand (EGAT) was planned to be signed by the end of 2007<sup>1</sup>, and construction would commence in 2008.

### Threats to biodiversity

- Nam Theun 1 is being constructed in the middle of the Nam Kading National Protected Area, one of the most remote and biodiversity-rich protected areas in the region. The World Bank's Global Environment Facility (GEF) and the Wildlife Conservation Society (WCS) have an ecosystem and wildlife management project in the Nam Kading Protected Area which is threatened by Nam Theun 1.<sup>2</sup> Nam Theun 1's reservoir will destroy large swathes of riverine and terrestrial wildlife habitat, effectively dividing the protected area in two.



- Roads for Nam Theun 1, and eventually the Nam Theun 1 reservoir itself, will dramatically increase access to the Nam Kading Protected Area. Some roads have reportedly already been constructed right to/into the national park, even before the environmental impact assessment (EIA) has been approved or permits given.
- Hunting pressures are likely to increase dramatically during Nam Theun 1's construction phase as thousands of workers move into the area. Reports of elephant deaths – poached for ivory and other parts - have already emerged. The 150-kilometer Nam Theun 1 transmission line would also reportedly traverse Ban Na, home to one of the largest wild elephant herds in Laos.

<sup>1</sup> "EGAT ready to sign purchase deals for four projects in Laos" *Bangkok Post* 26.10.07

<sup>2</sup> For more information:

<http://www.wcs.org/international/Asia/laos/laositebasedconservation/bolikhamxay?preview=&psid=&ph=cla...5252525253dawc-148772>

### Fisheries and Water Quality

- Communities downstream of Nam Theun 1 would be most severely affected by the cumulative impacts and water diversions of Nam Theun 2, Theun-Hinboun, Nam Theun 1, and the proposed Theun Hinboun Expansion projects. These villagers can expect major decreases in water flows and the predictability of these flows, water quality problems, and fisheries losses. Fish migrations from the Mekong to the upper Nam Kading and its tributaries would be blocked, and significant reductions in fish biodiversity can be anticipated.

### Economic Viability

- Nam Theun 1's economic viability has been questioned. According to a Power Development Strategy for Laos prepared in 2004<sup>3</sup>:
  - "Nam Theun 1 was screened [out] because the weighted average cost of generation of 5.68 ¢/kWh is above the cut-off value. The development of the Theun Hinboun Expansion proposals will further increase this figure by diverting more water from the Nam Theun basin upstream of the project"
  - "Similarly, increased diversion to the Hinboun by an expanded Theun Hinboun (including a storage on the Nam Gnouang) reduces generation flows at Nam Theun 1 and further detracts from its economic performance".

*December 2007*

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<sup>3</sup> Lahmeyer and Maunsell International (2004) "Power System Development Plan for Lao PDR" p113 and p124, <http://siteresources.worldbank.org/INTLAOPRD/491761-1094074854903/20252472/PSDP%20Main%20Report.pdf>