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### Introduction to the World Commission on Dams

The World Commission on Dams (WCD) was an independent body sponsored by the World Bank and IUCN, chaired by South African cabinet minister Kader Asmal, and including representatives from both the dam industry and anti-dam people's movements. The WCD's mandate was to review the development effectiveness of large dams and assess alternatives; develop a framework for assessing options and decision-making processes for water and energy services; and develop internationally acceptable criteria and guidelines for planning, designing, construction, operation, monitoring, and decommissioning of dams.

Despite their many differences in background and political perspective, the twelve WCD Commissioners managed to agree on a final report, *Dams and Development: A New Framework for Decision-Making*, which was released in London in November 2000.<sup>1</sup>

### The WCD report found that:

- large dams have forced 40 to 80 million people from their homes and lands, with impacts including extreme economic hardship, community disintegration, and an increase in mental and physical health problems. Indigenous, tribal and peasant communities have been particularly hard hit. People living downstream of dams have also suffered from increased diseases and the loss of natural resources upon which their livelihoods depend;
- large dams have caused great environmental damage, including the extinction of many fish and other aquatic species, significant losses of forest, wetland and farmland, and the release of greenhouse gases; and
- the benefits of large dams have gone largely to groups that do not bear the social and environmental costs. The poor and other vulnerable groups, such as indigenous peoples, have primarily borne the costs.

Based on these findings, the Commission proposes criteria and guidelines for future planning of energy and water projects. The Commission's guidelines are a "comprehensive and integrated framework for decision-making on the provision of water and energy services." The aim is to "provide a framework that emphasizes a structured process incorporating the full range of social, environmental, technical, economic and financial criteria and standards."

The WCD report emphasizes that this framework is a process, rather than a checklist for dam construction. The process is based on the recognition of the rights of all affected groups, together with an assessment of the significant involuntary risks imposed upon all those affected by the project. The WCD concludes that "only decision-making processes based on the pursuit of negotiated outcomes, conducted in an open and transparent manner and inclusive of all legitimate actors involved in the issue, are likely to resolve the many and complex issues surrounding dams."

Despite being one of the two sponsors of the WCD and having publicly supported the WCD process, the World Bank's response to the report has been lukewarm at best. Senior Bank water sector staff have strongly resisted efforts to incorporate WCD guidelines into existing Bank operational policies. However, the World Bank has stated that it will use the report "as a valuable reference to inform its decision-making process when considering projects that involve

<sup>&</sup>lt;sup>1</sup> World Commission on Dams, *Dams and Development: A New Framework for Decision-Making*, Earthscan, London, 2000. Also available for downloading from www.dams.org.

dams."<sup>2</sup> Additionally, World Bank donors, in the 2002 report of the Bank's International Development Association (IDA) 13<sup>th</sup> Replenishment, "noted the Bank's early support for the World Commission on Dams and asked that IDA take into account the core values and strategic priorities suggested by the WCD for preparing and evaluating dam projects."<sup>3</sup> Finally, in November 2004, IUCN members – including governments and non-governmental organizations – adopted a motion on "Financial institutions and the World Commission on Dams recommendations." This recommendation urges financial institutions to assess all proposed dam projects in the context of WCD strategic priorities and to decline support for dam projects that do not respect WCD strategic priorities.<sup>4</sup> It is with these statements in mind that the following analysis has been prepared.

#### **About Nam Theun 2**

Nam Theun 2 is the largest and most controversial of all the hydropower projects planned for Laos. Situated in Khammouane Province in central Laos, and only approximately 40 km upstream from the already completed Nam Theun-Hinboun Hydropower Project, the \$1.3 billion BOT (Build-Operate-Transfer) scheme is being developed by Electricité de France, Electricity Generating Company of Thailand (EGCO) and Ital-Thai Development Company in association with the Government of Laos (GoL) as the Nam Theun 2 Power Company (NTPC). In November 2003, NTPC signed a power purchase agreement with the Electricity Generating Authority of Thailand (EGAT), paving the way for the project's development. NTPC and the GoL are awaiting a decision on financial assistance and guarantees from the World Bank, which are necessary to secure financing from other commercial lenders and public institutions. The World Bank is expected to take a decision on whether or not to support Nam Theun 2 before May 2005.<sup>5</sup>

The project consists of a 50-meter high dam on the Theun River, the fourth largest tributary of the Mekong, and would flood approximately 450 square kilometers of the Nakai Plateau, an area of rich biological diversity. Water from the Nakai reservoir will drop more than 350 meters to a powerhouse with an installed capacity of 1070 MW. Almost all of the power will be exported to Thailand. The water discharged from the powerhouse will then flow to the Xe Bang Fai river through a purpose-built downstream waterway. The Xe Bang Fai flows into the Mekong about 150 km south of the Nam Theun. The project will displace approximately 6,200 indigenous people on the Nakai Plateau and affect more than 100,000 downstream villagers.

Despite maintaining that it has not decided to support the project, the World Bank has been promoting Nam Theun 2 since the mid-1980s. In 1986/87, the Bank was the executing agency for a pre-feasibility study of Nam Theun 2 funded by the United Nations Development Programme (UNDP).<sup>7</sup> In 1989, the World Bank and UNDP funded a feasibility study of Nam Theun 2 by Australian hydropower consultants Snowy Mountains Engineering Corporation (SMEC). In 1995, the Bank was formally approached by the Nam Theun 2 Electricity

World Bank, "The World Bank and the World Commission on Dams Report Q&A," March 2001.

<sup>&</sup>lt;sup>3</sup> World Bank Executive Directors, International Development Association, *Additions to IDA Resources: Thirteenth Replenishment, Supporting Poverty Reduction Strategies,* July 2002, p. 18.

<sup>&</sup>lt;sup>4</sup> IUCN RECWCC3.087 "Financial institutions and the World Commission on Dams recommendations," approved November 2004. Available at: http://www.iucn.org/congress/members/adopted\_res\_and\_rec/REC/RECWCC3087-%20REC024%20Rev.pdf.

<sup>&</sup>lt;sup>5</sup> The power purchase agreement deadline for reaching financial closure is May 8, 2005, after which date NTPC will be required to pay penalties to EGAT.

<sup>&</sup>lt;sup>6</sup> NTEC. Background to the Proposed Nam Theun 2 Hydroelectric Project in Laos, Vientiane, January, 1997, p.1.

Motor Columbus, Prefeasibility Study Report of a Future Major Hydroelectric Project: Nam Theun 2 – Nam Ngum 2 – Nam Ngum 3, 1987.

Consortium (NTEC), the consortium formed to develop the project, to provide assistance.<sup>8</sup> Commercial lenders have said that they will not finance the project without a partial risk guarantee from the World Bank.

The following analysis examines Nam Theun 2's compliance with the WCD's seven strategic priorities. The analysis shows that the project fails to comply with six of the seven strategic priorities outlined in the WCD report. On this basis, it is recommended that the World Bank should not provide guarantees and other assistance for Nam Theun 2, but instead should work immediately on developing alternative plans for conserving the watershed area and improving the livelihoods of people living on the Nakai Plateau.

### Strategic Priority 1 - GAINING PUBLIC ACCEPTANCE

- 1.1 Recognition of rights and assessment of risks are the basis for the identification and inclusion of stakeholders in decision-making on energy and water resources development.
- 1.2 Access to information, legal and other support is available to all stakeholders, particularly indigenous and tribal peoples, women and other vulnerable groups, to enable their informed participation in decision-making processes.
- 1.3 Demonstrable public acceptance of all key decisions is achieved through agreements negotiated in an open and transparent process conducted in good faith and with the informed participation of all stakeholders.
- 1.4 Decisions on projects affecting indigenous and tribal peoples are guided by their free, prior and informed consent achieved through formal and informal representative bodies.

# Nam Theun 2 Compliance

The overall thrust of the WCD's approach is that there needs to be a "fair, informed and transparent decision-making process" in order to be "socially legitimate and produce positive and lasting outcomes." For such a process to take place, there must be a well-developed civil society, access to independent sources of information, and the ability for local people to have informed input into the process without fear of retribution. Unfortunately, this type of political climate does not exist within Laos. There is no independent media in Laos, and there are no independent local NGOs. The government continues to commit serious human rights abuses, and critics have been arrested and imprisoned. The legal system is at a rudimentary stage of development and there is no independent judiciary. In such a political environment, it is difficult to see how a truly open and participatory decision-making process could take place. This is a fundamental problem in proceeding with a large project like Nam Theun 2, and it undermines the credibility of all consultation efforts undertaken thus far.

A number of groups in Laos will be directly affected by the Nam Theun 2 project. More than 6,200 indigenous people living on the Nakai Plateau will be resettled to make way for the dam. More than 100,000 people living along the Xe Bang Fai will be affected by increased water flow in the river. The Lao population as a whole is affected by the risks assumed by the government for Nam Theun 2, in terms of debts incurred, management of project revenues, and the project's environmental and social impacts. Additionally, at least 1,500 families who live or fish downstream of the dam on the Nam Theun and its tributaries will lose fisheries as result of the

<sup>&</sup>lt;sup>8</sup> With Electricite du Lao as a member, the consortium becomes the Nam Theun 2 Power Company or NTPC.

<sup>&</sup>lt;sup>9</sup> Dams and Development, p. 245.

dramatic reductions in water flow below the dam. There are also villagers with assets and lands that will be taken for project construction. These last two groups have received the least amount of information about the project. Public participation and efforts to obtain the consent of each of these groups will be discussed separately.

### a. Consultations with indigenous people living on the Nakai Plateau

The Nam Theun 2 Social Development Plan recognizes that the numerous different ethnic groups to be directly affected by the project are defined as indigenous peoples according to World Bank criteria. The WCD states that indigenous and tribal peoples must give their free, prior and informed consent to the project. They should have access to legal and other professional support to participate fully and actively in negotiations. Consent should be obtained through formal and informal representative bodies. The WCD says that a "final agreement on how to express consent will be reached before the start of the planning process." 11

It is not disputed that numerous discussions with communities living on the Nakai Plateau have occurred. Furthermore, it is acknowledged that some communities have expressed their desire to move because of the severe depletion of their natural resource base that occurred in anticipation of the dam. Due to logging on the Nakai Plateau, the project effectively commenced long before communities had any opportunity to provide their consent. The processes that have taken place thus far cannot be considered to be compatible with the concept of free, prior and informed consent as defined by the WCD and international human rights conventions.

First, the decision to construct the dam was taken well before the public was invited to participate in the decision-making process. The majority of the public consultation and participation efforts took place after 1995, when the project's detailed design had already been finalized. While social, health and wildlife studies were conducted prior to 1995 and involved discussions with villagers, these were primarily to elicit information from Plateau residents, not to discuss the proposed project's development in any detail. Substantive input of affected communities and the broader public has occurred largely in the context of establishing resettlement options and mitigation measures, which came later in the project development process. Villagers were never given the opportunity to consent to or reject the project itself, or the resettlement that will be required. According to Shalmali Guttal and Bruce Shoemaker, two development experts with significant experience working in Laos:

Historical, cultural, and political factors instill local people with deference towards outsiders and a particular desire to avoid conflict with those perceived as powerful. This is particularly true when the outsiders are foreigners or those in positions of state authority. In such situations, if outsiders and officials already know what answers they want, it is usually quite easy for them to obtain these answers from local people. In local communities living on the Nakai Plateau, the content of discussions in the consultations were (and are) – as they had been (and are) in Vientiane – very much within the framework of a decision already made. This created an insurmountable barrier that prevented public consultation and participation of the extent and degree required by World Bank regulations and demanded by the WCD framework for decision-making. <sup>13</sup>

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<sup>&</sup>lt;sup>10</sup> Nam Theun 2 Social Development Plan, November 2004 draft, Chapter 1, p.10.

<sup>&</sup>lt;sup>11</sup> Dams and Development, p. 250.

Shalmali Guttal, "Public Participation and Consultation for the Nam Theun 2 Dam," submission to the World Commission on Dams, 2000.

<sup>&</sup>lt;sup>13</sup> Shalmali Guttal and Bruce Shoemaker, "Manipulating Consent: The World Bank and Public Consultation in the Nam Theun 2 Hydroelectric Project," in *Watershed* Vol. 10 No. 1, July-October 2004.

The communities that will be resettled have not had access to independent legal or other professional support, as called for by the WCD. In fact, the consultations on the Nakai Plateau have been an exercise in information dissemination with a secondary objective of "eliciting concerns from villagers."14 No effort has been made to negotiate agreements with affected villagers regarding the project itself and the proposed compensation and mitigation measures. The latest round of discussions indicates that villagers still lack a detailed understanding about the resettlement program and that a number of concerns remain about major issues, such as land allocation, employment during construction, ability to maintain buffalo stocks and opportunities for rice cultivation. NTPC has made no commitment to address these concerns. 15

### b. Consultations with communities living along the Xe Bang Fai

More than 100,000 people living along the Xe Bang Fai will be affected by increased water levels as a result of releases from the dam. The impacts are predicted to be overwhelmingly negative, yet as recently as September 2004 villagers had still not received accurate information about the project. According to the Social Development Plan, "Xe Bang Fai villagers are not as aware of the predicted project impacts, and thus a focus of the consultations was explaining these to them and eliciting their first general response." <sup>16</sup> In fact, NTPC and the government apparently presented misinformation to villagers about Nam Theun 2's impacts before 2004, claiming, amongst other things, "more water means more fish." 17

Communities along the Xe Bang Fai have also not been provided with legal assistance or the opportunity to negotiate agreements with project developers. A number of villages in the upper Xe Bang Fai are indigenous peoples, largely Brou, who do not speak Lao as a first language. 18 The WCD asserts that these communities should be guaranteed the right to free, prior and informed consent, but that right has clearly not been recognized.

### c. Consultations at the national level

Project proponents point to a public participation program held in Laos throughout 1997 and in 2002 and 2004 as proof that Nam Theun 2 has gained public acceptance at the national level. However, these workshops were attended primarily by government officials and staff from international organizations, and local civil society was notably absent. Reports from Lao-based international NGOs who attended the meetings showed that most participants could not sufficiently absorb the information provided to engage in discussion about the complexities of the project. Furthermore, the discussions in these consultations took place within the framework of a decision that was already taken. The central government had already decided to proceed with the project, the World Bank was already heavily involved in project preparation, some resettlement had already occurred, and logging of the reservoir area was well underway. Bruce Shoemaker, who was at the time the Director of an international NGO in Laos, said of the 1997 process:

<sup>&</sup>lt;sup>14</sup> Nam Theun 2 Social Development Plan, November 2004, Vol 1, Ch. 8, p. 31.

<sup>&</sup>lt;sup>15</sup> Ibid, pp. 31-35. Also see "Nam Theun 2: Perspectives on Local Consultations," compiled by NGO Forum on the ADB, November 2004.

16 Nam Theun 2 Social Development Plan, November 2004, Vol 1, Ch. 4, p. 26.

<sup>&</sup>lt;sup>17</sup> See, for example, http://www.namtheun2.com/faq/faq\_env.htm and Les Amis de la Terre, Campagna per la Riforma della Banca Mondiale. Bank Information Center, and Environmental Defense, "NGO Visit to Nam Theun 2 Hydroelectric Project in Laos," December 2003, p. 6.

Barbara Franklin, A Review of Local Public Consultations for the Nam Theun 2 Hydroelectric Project, Consultant to the Government of Lao PDR, September 1997, p.17

Many observers viewed this as a cynical and insincere exercise by the project proponents. ... NGO "participation" was manipulated and stage-managed through an elaborate public relations exercise carried out by the proponent's consultants. Workshop agendas were pre-set and mostly devoted to presentations by the project proponents and their consultants. This allowed little opportunity for NGOs or others to critique the project in fundamental ways or examine issues in depth. Much of the dialogue was between foreigners and the voices of Lao decision-makers and local people were, for the most part, excluded. ... Many International NGO staff ended up feeling that they had been used as surrogates for local NGOs in order for the World Bank to try to legitimise a fundamentally flawed consultative process. <sup>19</sup>

There is little indication that the workshops held in 2002 and 2004 were very different in format or substance from the earlier consultations. As a result, many participants were unable to engage in comprehensive and open discussions with policy and decision makers about the possible impacts of the project.

#### d. Consultations with villagers downstream along the Nam Theun

Of all the groups who will be affected by the Nam Theun 2 project, communities who live downstream from the dam site and fish in the Nam Theun and its tributaries seem to have been the least informed about the project. These villagers rely on fish and other aquatic products for income and food supply, and rank these activities second or third in terms of household food security after rice and vegetable cultivation.<sup>20</sup> The project developers now admit that at least 1,500 families living along the lower Nam Phao will experience 60 percent declines in their fish catches as a result of the project.<sup>21</sup> With flows to the Nam Theun reduced to 2 cubic meters per second (cu m/sec) – which represents only a fraction of the natural flows in the river where average discharges at the dam site range from a low of 31.9 cu m/sec in the dry season to a high of 734 cu m/sec in the wet season<sup>22</sup> – impacts on fisheries are likely to be severe. However, most of these communities have yet to be consulted about the Nam Theun 2 project.

The latest information provided in Nam Theun 2's Social Development Plan Addendum noted that consultations with these villagers would begin in March or April 2005 and focus on "explanation [regarding] predicted impact of [Nam Theun 2] project on fisheries," seeking input from villagers on "mitigation and/or compensation." The decision to release only 2 cu m/sec as the minimum downstream flow was taken before the environmental and social study was completed, and before any consultations had occurred.

## e. Consultations with villagers on project lands

Consultations with villagers whose lands and assets will be acquired permanently or temporarily for project construction were only initiated at the end of 2004 and have not yet been completed.<sup>24</sup> According to the Social Development Plan, there are four main groups of indigenous peoples living on project lands, accounting for hundreds of households.<sup>25</sup> As with

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<sup>&</sup>lt;sup>19</sup> Shoemaker, Bruce, "NGOs and Natural Resource Conflict: In Whose Interests?" *Watershed,* Vol. 4, No. 2, Nov 1998-Feb 1999.

Nam Theun 2 Environmental Assessment and Management Plan, Addendum, Riparian Release Study, January 2005, p. 3.

<sup>&</sup>lt;sup>21</sup> Ibid, Table x-13.

Nam Theun 2 Environmental Assessment and Management Plan, November 2004, p. 45.

<sup>&</sup>lt;sup>23</sup> Nam Theun 2 Social Development Plan, January 2005 Addendum, Vol 3, Ch. 6, pp. 7-8.

<sup>&</sup>lt;sup>24</sup> Ibid, Vol 4, Ch. 6, pp. 2-3.

<sup>&</sup>lt;sup>25</sup> Ibid, Ch. 4, p. 2.

other villagers in these areas, they have only recently received information on Nam Theun 2 and have not given their free, prior and informed consent to the project.

In short, the process of consultation and participation with affected people cannot be considered to be in accordance with WCD guidelines, which specify that the process must be "open and transparent," and conducted "in good faith and with the informed participation of all stakeholders." In the case of the indigenous peoples on the Nakai Plateau, the upper Xe Bang Fai, and on project lands, their free, prior and informed consent was not obtained. Many villagers living on the middle and lower Xe Bang Fai, downstream of the dam site along the Nam Theun, and on project lands have not been consulted in detail or at all. There has been no meaningful public participation process or open and informed debate amongst Lao society as a whole.

During the stages of preparation for Nam Theun 2, the most basic requirements for informed participation in decision-making have not been met. Considering the repressive political climate in Laos, it seems clear that free, prior and informed consent of affected and indigenous peoples is impossible. The following statement from a Lao citizen with significant knowledge about Nam Theun 2 underscores this point:

As you know, the political of Laos is really different so far, government very pro in this project. So, if me or someone of Lao speak out tending to against, we can not live, especially tell to the foreigner important person which concerning to the project, even if we are truly identify to the deficiencies, and truly wanted to improve. By the reason I am quiet, and better I should be find another way to help the poor in other parts.<sup>26</sup>

# Strategic Priority 2 - COMPREHENSIVE OPTIONS ASSESSMENT

- 2.1 Development needs and objectives are clearly formulated through an open and participatory process before the identification and assessment of options for water and energy resource development.
- 2.2 Planning approaches that take into account the full range of development objectives are used to assess all policy, institutional, management, and technical options before the decision is made to proceed with any programme or project.

A multi-criteria assessment was used to screen and select preferred options from the full range of identified alternatives. The screening of options covered all policy, programme and project alternatives.

### Nam Theun 2 Compliance

The WCD report notes that "alternatives to dams do often exist. To explore these alternatives, needs for water, food, and energy are assessed and objectives clearly defined. The appropriate development response is identified from a range of possible options. The selection is based on a comprehensive and participatory assessment of the full range of policy, institutional, and technical options."<sup>27</sup>

The World Bank has been promoting the Nam Theun 2 dam as an income generator for Laos since 1986. Yet no participatory, comprehensive assessment of *alternatives to hydropower* as a means for generating foreign exchange has ever been completed for Laos. In 1997, the World Bank commissioned a Study of Alternatives to Nam Theun 2, done by hydropower consultants

<sup>&</sup>lt;sup>26</sup> As quoted in Guttal and Shoemaker, "Manipulating Consent."

<sup>&</sup>lt;sup>27</sup> WCD, *Dams and Development*, p. 221.

Lahmeyer. The study focused on how the country could meet its commitments to provide electricity to Thailand, rather than on other options by which water and other resources could be utilized to provide revenue and support poverty reduction in Laos. Subsequent studies completed in 2000 and 2004 also examined only power export options for Laos, all except one of which were hydropower projects.

The claims that Nam Theun 2 is the best means of protecting the watershed area, of providing sustainable livelihood options for Nakai Plateau villagers, or even of generating foreign exchange for Laos, are not based on a comprehensive and participatory analysis of alternatives. For example, the limited economic information that is available about the project indicates that the revenue streams for Laos are projected to total no more than 5 percent of government revenues until 2019. There has been no assessment of lower-risk options that might generate similar revenue streams for the country. While the World Bank's December 2004 Country Economic Memorandum examines other sources of growth for Laos, it does not constitute a participatory, comprehensive options assessment conducted early in the screening process, as called for by the WCD. Nevertheless, the review does in fact conclude that "agriculture is the most critical sector for improving development outcomes in Lao PDR" and notes that "the *direct* contribution of natural resources (hydropower, mining, and forestry) to GDP growth is relatively small."

Analysis of Thailand's energy demands and changing power market suggests that Nam Theun 2 is not the best option for Thailand either. According to research conducted by the Energy Committee of the Thai National Economic and Social Advisory Council, EGAT– the buyer of Nam Theun 2's power – has overestimated energy demand growth in its Power Development Plan for 2004-2015, which includes the purchase of power from Nam Theun 2. The January 2004 forecast, used as the basis for the 2004 Power Development Plan, estimated 2004 energy consumption to be 247 MW higher than actual demand, overestimated GDP growth rates and peak demand, and underestimated energy efficiency to GDP ratios. Adjusting for these factors means that Thailand would require 6,290 MW less power by 2015, which is equivalent to almost seven Nam Theun 2 projects.<sup>30</sup>

World Bank, "Nam Theun 2 Economics Interim Summary Report," August 21, 2004, p. 18.

<sup>&</sup>lt;sup>29</sup> World Bank, *Lao PDR Country Economic Memorandum: Realizing the Development Potential of Lao PDR*, December 2004, p. 18, 46.

<sup>&</sup>lt;sup>30</sup> Witoon Permpongsacharoen, Thai National Economic and Social Advisory Council, "An Alternative to Thailand's Power Development Plan," in *Watershed*, Vol. 10, No 1, July-October 2004, p.31.

Year	January 04 Forecast		Adjustments to Jan 04 Forecast (MW)					Forecast (Adjusted)
	Assumed per annum GDP growth rate	Peak Demand (MW)	Use actual 2004 peak as base (19,326)	GDP Growth = 5.6% (average past 15 years)	Demand : GDP = 1:1	Peak Cut (according to EGAT's PDP 2004)	Total (MW)	Peak Demand (MW)
2004	6.5%	19,600	-274	0	0	0	-274	19,326
2005	6.5%	21,143	-296	-35	-259	0	-590	20,553
2006	6.5%	22,738	-318	-110	-482	-500	-1411	21,327
2007	6.5%	24,344	-340	-227	-629	-500	-1696	22,648
2008	6.4%	26,048	-364	-373	-797	-500	-2034	24,014
2009	6.4%	27,852	-389	-577	-962	-500	-2429	25,423
2010	6.6%	29,808	-417	-903	-1113	-500	-2933	26,875
2011	6.5%	31,844	-445	-1280	-1252	-500	-3477	28,367
2012	6.5%	33,945	-475	-1731	-1343	-500	-4048	29,897
2013	6.5%	36,173	-506	-2277	-1428	-500	-4711	31,462
2014	6.4%	38,515	-538	-2897	-1519	-500	-5454	33,061
2015	6.5%	40,978	-573	-3652	-1565	-500	-6290	34,688

In addition to requiring unnecessary investment costs, EGAT's Power Development Plan also ignores less expensive energy alternatives. The National Economic and Social Advisory Council's Alternative Power Development Plan shows that co-generation, renewables, demand-side management and re-powering can more than meet Thailand's electricity needs for the next fifteen years without Nam Theun 2.

These findings are supported by a study commissioned by the World Bank – but never disclosed – which examined the impact of energy conservation, demand side management and renewable energy generation on Thailand's Power Development Plan. The report found that demand side management, energy conservation measures, and renewable energy generation which could feasibly be achieved by 2011 would "exceed the output of NT2 and would provide energy to the customer at a cost approximately 25% less than NT2." This World Bank study and the Alternative Power Development Plan produced by the Thai National Economic and Social Advisory Council indicate that there are less expensive options for meeting Thailand's energy needs than Nam Theun 2.

The aggressive promotion of hydropower by the World Bank, the Asian Development Bank, and the industry has placed Laos in a vulnerable situation with all of its eggs in the hydropower basket. The absence of a participatory and comprehensive options assessment at the early stages of project planning undermines any claims that Nam Theun 2 is the best option for generating foreign exchange for Laos, or for protecting the watershed area and the livelihoods Nakai Plateau communities. Alternatives for achieving these objectives have never been assessed.

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<sup>31</sup> Ibid.

<sup>&</sup>lt;sup>32</sup> "Nam Theun 2 Hydropower Project: Impact of Energy Conservation, DSM and Renewable Energy Generation on EGAT's Power Development Plan," August 28, 2004. Commissioned by the World Bank.

### **Strategic Priority 3 – ADDRESSING EXISTING DAMS**

3.3 Outstanding social issues associated with existing large dams are identified and assessed; processes and mechanisms are developed with affected communities to remedy them.

# Nam Theun 2 Compliance

Nam Theun-Hinboun dam, approximately 40 km downstream of the proposed site of Nam Theun 2, was funded by the Asian Development Bank (ADB) and completed in 1998. The Theun-Hinboun Power Company is a joint public-private venture in which the GoL has a 60 percent stake in the project and Nordic and Thai investors control the remaining 40 percent.

As a trans-basin diversion project, Theun-Hinboun is in many ways an indicator of the types of impacts that can be expected of Nam Theun 2. At Theun-Hinboun, the water is diverted from the Theun River to the Hinboun River. Villagers living along the Hinboun all the way to its confluence with the Mekong have experienced declines in fish catch of between 30 and 90 percent, flooding of vegetable gardens, erosion of riverbanks, problems with water quality, and transportation difficulties due to the increased water levels. Villagers living downstream along the Theun River (which becomes the Nam Kading) have seen dry season fisheries decimated and experienced water shortages due to low water levels. Villagers living upstream along the headpond have also experienced serious declines in fisheries due to the dam's blockage of fish migrations. Other impacts include erosion, flooding of vegetable gardens and problems with fresh water supply.<sup>33</sup> The impacts felt by more than 25,000 villagers have been acknowledged by the ADB and the Theun-Hinboun Power Company.<sup>34</sup> However, despite sustained lobbying by NGOs and numerous promises from the ADB, adequate compensation has still not been provided to affected communities, especially for fisheries losses.

Nam Theun 2 is also a trans-basin diversion project in the same river basin with impacts that are likely to be more severe than those of Theun-Hinboun, due to Nam Theun 2's significantly larger size. Water flows will be increased by up to 330 cu m/sec in the Xe Bang Fai and dry season flows downstream will be maintained at only 2 cu m/sec, compared to 5 cu m/sec at Theun-Hinboun. The Nam Theun 2 reservoir is much larger than the Theun-Hinboun headpond. All of these factors mean that similar but more severe impacts can be expected at Nam Theun 2.

For the past four years, the Lao-based Theun-Hinboun Power Company has invested significant resources in mitigation measures and compensation for the impacts of the Theun-Hinboun hydropower project. While the company has made "good progress," according to a third-party review panel, there are serious concerns about the effectiveness and long-term sustainability of its program to restore affected people's livelihoods. The panel found that "the poorest sectors of the impacted communities, and those heavily reliant on living aquatic resources for their

These impacts are documented in Bruce Shoemaker, *Trouble on the Theun-Hinboun: A Field Report on the Socio-Economic and Environmental Effects of the Nam-Theun-Hinboun Hydropower Project in Laos*, International Rivers Network, Berkeley, 1998; International Rivers Network, *An Update on the Environmental and Socio-Economic Impacts of the Nam Theun-Hinboun Hydroelectric Dam and Water Diversion Project in Central Laos*, Berkeley, 1999; and Terry Warren, *A Monitoring Study To Assess The Localized Impacts Created By The Nam Theun-Hinboun Hydro-Scheme On Fisheries And Fish Populations*, June 1999.

<sup>&</sup>lt;sup>34</sup> See for example, Asian Development Bank, "Aide Memoire: Special Review Mission, 18-28 November, 1998," Theun-Hinboun Hydropower Project, and Asian Development Bank, "Aide Memoire: Special Review Mission, 9 to 18 November, 1999: Theun-Hinboun Hydropower Project.

<sup>&</sup>lt;sup>35</sup> Draft Final Review of the Environmental Management Division for Theun-Hinboun Power Company Limited, 2004.

livelihoods and diets ... have not been adequately included in project activities to date." As of February 2005, compensation for lost fisheries had still not been provided to affected people.<sup>36</sup>

Additionally, roughly 9,000 villagers have been impacted by the ADB-funded Nam Leuk dam in central Laos. They have suffered losses to drinking water supplies and fisheries. Fish catches reportedly dropped 50 to 95 percent along the Nam Leuk and Nam Xan rivers after the dam was completed. As a result, the ADB says it is "quite possible" that families "lack alternative income sources and adequate protein intake."37 Without recourse mechanisms, affected communities had nowhere to turn when promises were broken.

Furthermore, when Nam Leuk was approved, the ADB boasted that 1 percent of export revenues would be used to protect Phou Khao Khouay National Park, one of the country's most important protected areas and home to endangered tigers and elephants. However, inadequate management of the park and improper disbursement of funds has threatened the long-term sustainability of Phou Khao Khouay. These issues will likely remain unresolved until the ADB establishes clear mechanisms to ensure compliance with social and environmental conditions after projects have been completed.

Another 23,000 villagers have been affected by the Nam Song, Nam Mang 3 and Houay Ho hydropower projects. They have suffered losses in terms of food security, cultural heritage, water supply and other aspects of their daily lives. For example, the ADB-funded Nam Song diversion dam caused significant declines in fisheries and losses in agricultural land and water sources for villagers, which ADB consultants valued at nearly two million dollars.<sup>38</sup> Villagers displaced by the Houay Ho project were moved to resettlement sites without adequate arable land and drinking water.<sup>39</sup> These problems have not been resolved.

WCD guidelines stipulate that outstanding issues with existing dams must be rectified before additional dams are built. Many years after their construction, the problems at Theun-Hinboun. Nam Leuk, Nam Song, Nam Mang 3, and Houay Ho are far from being solved. If the GoL, ADB, and the dam developers cannot ensure that Lao citizens affected by much smaller hydropower projects are adequately compensated for their losses, then it is difficult to see how the World Bank can guarantee that those affected by Nam Theun 2 will not also be left worse off.

### Strategic Priority 4 – SUSTAINING RIVERS AND LIVELIHOODS

4.1 A basin-wide understanding of the ecosystem's functions, values and requirements, and how community livelihoods depend on and influence them, is required before decisions on development options are made.

Effective avoidance, minimization and mitigation of negative environmental impacts from large dams and their alternatives require good baseline information and scientific knowledge of the riverine ecosystem, gathered over several years....

4.5 Large dams provide for releasing environmental flows to help maintain downstream ecosystem integrity and community livelihoods and are designed, modified and operated accordingly.

<sup>&</sup>lt;sup>36</sup> Ibid.

<sup>&</sup>lt;sup>37</sup> Asian Development Bank Operations Evaluation Department, "Project Performance Audit Report on the Nam Leuk Hydropower Project in the Lao PDR." 2004.

Roel Schouten and Sean Watson, "Nam Son Diversion Project ADB TA 5693- Draft Impact Analysis Report and Action Plan," Asian Development Bank, October 2001.

International Rivers Network, The Legacy of Hydro in Laos, July 2004.

### Nam Theun 2 Compliance

The WCD states clearly that there must be good baseline information gathered over several years before a decision to build a dam is taken. Independent technical reviews of the Nam Theun 2 project's social and environmental plans indicate that sufficient baseline data on critical aspects such as hydrology, fisheries, and water quality has not been collected.<sup>40</sup>

A review of the project's hydrologic data found the analysis to be so deficient that it is impossible to predict how much water will be available for power generation. The reviewers determined that the lack of long-term stream flow and rain flow monitoring, coupled with questionable statistical analysis techniques, makes Nam Theun 2 "high risk for meeting its power generation predictions and for estimating potential project impacts." In addition, the project developers have undertaken no analysis of how global climate change might affect flows in the Theun River. <sup>41</sup>

Professor Guy Lanza, who reviewed the water quality data for the Nam Theun 2 project, found that the baseline water quality data provided for the project area is extremely limited. The data is not sufficient for estimating water quality changes in general, or for accurately calibrating water quality models. Specifically, the lack of adequate data available for the project area prohibits accurate predictions of the water quantity and quality changes that will occur in the proposed Nakai Reservoir, as well as in the Nam Theun, Nam Kading, Xe Bang Fai, Nam Kathang, and Nam Phit rivers. Furthermore, Lanza noted that he Nam Theun 2 Environmental Assessment and Management Plan (EAMP) provides no data on aquatic macroinvertebrates, which are a vital source of food for fish and other species and also play an important role in maintaining good water quality. 42

One of the major concerns is the impact of Nam Theun 2 on the fisheries of the Nam Theun, Mekong and Xe Bang Fai rivers. More than one million people in central Laos depend on fish from the Nam Theun, Nam Kading, Nam Hinboun, Xe Bang Fai and Mekong rivers and their tributaries for protein and for supplemental income. Fisheries impacts will be experienced principally in three separate locations: downstream of the dam in the Nam Theun/Nam Kading, upstream of the dam and in the reservoir, and along the Xe Bang Fai.

According to the Nam Theun 2 Social Development Plan (SDP), the project is likely to cause a "collapse in the aquatic food chain" along the Xe Bang Fai. <sup>43</sup> However, the official prediction of fisheries impacts for the downstream rivers is based on only three field surveys, all conducted during the dry season. As a result, the number of fish species present in the Xe Bang Fai is likely to have been underestimated and no study of fish migrations in either the Nam Theun or Xe Bang Fai river basins was undertaken. <sup>44</sup> The environmental assessment also ignores the importance of other aquatic organisms such as gastropods, mussels, shrimp and aquatic weeds in the riverine ecology and food chain, and therefore fails to consider the implications of the loss of these resources for the food security and livelihoods of the people of the Xe Bang Fai basin.

<sup>&</sup>lt;sup>40</sup> Technical reviews available at: <a href="http://www.irn.org/programs/mekong/namtheun.html">http://www.irn.org/programs/mekong/namtheun.html</a>

Peter Willing and Karla Knoop, "Review of Hydrology Component Of Environmental Assessment and Management Plan (EAMP) For Proposed Nam Theun 2 Hydropower Project," January 20, 2005. Available at www.irn.org/prorams/mekong/namtheun.html.

<sup>&</sup>lt;sup>42</sup> Professor Guy Lanza, PhD, "Review of the Water Quality Assessment (EAMP), Proposed Nam Theun 2 Hydroelectric Project," February 2005. Available at: www.irn.org/prorams/mekong/namtheun.html.

<sup>&</sup>lt;sup>43</sup> Nam Theun 2 Social Development Plan, Social Development Plan Addendum, January 2005, Vol. 3, Ch. 4, p. 40.

<sup>&</sup>lt;sup>44</sup> David Blake, "A Review of the Nam Theun 2 Environmental Assessment and Management Plan as it pertains to impacts on Xe Bang Fai fisheries," January 2005. Available at: www.irn.org/prorams/mekong/namtheun.html.

Baseline studies on existing livelihoods of communities living along the Xe Bang Fai will only be completed after project approval.

The measures proposed by NTPC to mitigate and/or compensate villagers for the impacts described above appear to be, in many cases, misguided, untested or inadequate. For example, NTPC assumes that aquaculture and animal-raising options can replace wild fisheries for villagers who rely on fish from the Xe Bang Fai for food and income. As David Blake, a fisheries and aquaculture specialist based in Thailand, notes:

aquaculture should not be considered as a direct replacement to capture fisheries, as cultured fish do not have an equal economic, nutritional or cultural value in the diets of Lao villagers. Even if villagers did decide to take up aquaculture in any numbers (unlikely to exceed 20% of households even under ideal circumstances), it is unlikely that there will be adequate human resources or supporting infrastructure in the area to provide sufficient fish seed or offer training and extension services. The poorest families would most likely miss out on the benefits of this activity, due to a tendency for risk aversion and general asset deficiency such as land and capital, important prerequisites for the proposed forms of aquaculture.45

Proposals to introduce alternative livestock production for Xe Bang Fai villagers are lacking in substance and have failed to incorporate lessons learned from Theun-Hinboun. According to David Blake's analysis, the Nam Theun 2 project's proposition that villagers will prefer cattle instead of small livestock, and that cattle-raising is feasible for mass extension, is unrealistic given local constraints. 46 The Theun-Hinboun Power Company has spent three years attempting to introduce small livestock programs to dam-affected villages and the results have been mixed.

Downstream of the dam on the Theun River, NTPC has guaranteed a minimum release of only 2 cu m/sec, a fraction of the water volume naturally available in the Nam Theun.<sup>47</sup> This figure was selected based on financial considerations before a riparian release study was even conducted. This could not possibly be considered sufficient to maintain downstream ecosystem integrity as recommended by the WCD. In fact, the Nam Theun 2 Social Development Plan admits, "it is assumed that most of the current fish population will disappear, due to the changes in hydrology and hence in natural habitats."48 It is not clear what compensation and mitigation measures will be available to which villagers in the Nam Theun downstream area.

The Theun-Hinboun dam provides the best evidence of the types of impacts that can be expected from decreasing the minimum downstream flow. At Theun-Hinboun, the downstream minimum flow is 5 cu m/sec, more than double that promised at Nam Theun 2. And yet, according to Terry Warren, fisheries expert,

the main impact on resident fish populations comes from the increased water residence times (time taken for the volume of water in a deep pool to be completely replaced by new water) in the deep pools where many species take up dry-season refuge. Fish are at their most vulnerable during the dry-season months when the effects of predation, increased water temperatures, lowered oxygen levels and susceptibility to disease are

<sup>&</sup>lt;sup>45</sup> David Blake, "A Review of the Adequacy of Compensation Measures for Communities Living Along the Xe Bang Fai River, Nam Theun 2 Hydropower Project, Lao PDR," January 2005. Available at: www.irn.org/prorams/mekong/namtheun.html.

According to latest draft of the EAMP, average discharges in the Nam Theun at the dam site range from a low of 31.9m3/sec in the dry season to a high of 734 m3/sec in the wet season (Nam Theun 2, Environmental Assessment and Management Plan, November 2004, Ch. 3, p. 45.)

48 Nam Theun 2 Social Development Plan Addendum, January 2005, Vol. 3, Ch. 1, p. 6.

greatest. Increased water residence time produces three main effects. Firstly, water temperatures increase and, as a consequence of this, oxygen levels decrease. Increased water temperature and lowered oxygen cause stress to fish populations and as such make them more vulnerable to predation and disease. Thirdly, phytoplankton levels increase causing the water colour to appear more green. Many Nam Theun species are not suited to these conditions but instead are adapted to environments with clear, cool waters with high levels of dissolved oxygen.<sup>49</sup>

Villagers living along the Nam Kading downstream from Theun-Hinboun reported 30 to 70 percent declines in fish catch in March 1998, three months after the dam had closed.<sup>50</sup> In August 1999, villagers reported a 50 percent decline in incomes from selling fish and declines in fish consumption from an average of about 2 kg a day per family to about 0.5 kg a day. Villagers claimed that some large and valuable species of fish no longer migrate up the Nam Kading due to decreased water flow.<sup>51</sup>

Finally, the impoundment of the Nam Theun to create a massive reservoir will have significant impacts on fisheries on the Nakai Plateau. Many migratory and riverine fish species will be unable to thrive in the reservoir. The Social Development Plan does not recommend the introduction of new species into the reservoir, but rather states that dam gates will be closed after the migratory season to enable native species to adapt to their altered environment. Fisheries biologist Eric Theiss predicts that most fish are likely to die during the first few years after dam construction because of the predicted anoxic (lacking in oxygen) conditions in the reservoir. 52 The Social Development Plan presents the Nam Theun 2 reservoir fishery as one of four livelihood options for the 6,200 people displaced by the project, but this presumption "is a precarious gamble at best" given that the reservoir could be "largely devoid of life except for invasive aquatic weeds and small islands of survivor fish species near the tributary mouths."53

The paucity of research and analysis undertaken thus far makes it difficult to predict just how serious the impacts of the project on fisheries, and therefore on communities' livelihoods, are likely to be. Baseline information on the riverine ecosystem and scientific data gathered over several years is lacking. However, using the impacts at Theun-Hinboun as a guide, it can be assumed that Nam Theun 2's impacts on fish populations and resource dependent communities are likely to be severe. The mitigation and compensation options for displaced and downstream villagers – from reservoir fisheries to aquaculture to community-based production forestry – are largely untested and have a high risk of failure.<sup>54</sup> There are no contingency plans or guarantees for communities if these proposed livelihood measures fail.

### Strategic Priority 5 - RECOGNISING ENTITLEMENTS AND SHARING BENEFITS

5.1 Recognition of rights and assessment of risks is the basis for identification and inclusion of adversely affected stakeholders in joint negotiations on mitigation, resettlement and development related decisionmaking.

<sup>49</sup> Warren, op cit, p.23

International Rivers Network, *Power Struggle: The Impacts of Hydro-Development in Laos*, Berkeley, 1999, p.17.

<sup>&</sup>lt;sup>51</sup> International Rivers Network, An Update on the Environmental and Socio-Economic Impacts of the Nam Theun-Hinboun Hydroelectric Dam and Water Diversion Project in Central Laos, 15-17 August 1999, p.16.
<sup>52</sup> Eric Theiss, "Reservoir Fisheries Predictions for the Nam Theun 2 Hydroelectric Project," Sustainable Environment

Foundation, February 2005. Available at www.irn.org/prorams/mekong/namtheun.html. <sup>53</sup> Ibid.

<sup>&</sup>lt;sup>54</sup> For more information, see Nam Theun 2 independent technical reviews available at www.irn.org/prorams/mekong/namtheun.html.

- 5.2 Impact assessment includes all people in the reservoir, upstream, downstream and in catchment areas whose properties, livelihoods and non-material resources are affected.
- 5.3 All recognized adversely affected people negotiate mutually agreed, formal and legally enforceable mitigation, resettlement and development entitlements.
- 5.4 Adversely affected people are recognized as first among the beneficiaries of the project. Mutually agreed and legally protected benefit sharing mechanisms are negotiated to ensure implementation.

### Nam Theun 2 Compliance

The WCD states that the risks for all people affected by the project should be assessed prior to project approval. The risks for the more than 100,000 people living along the Xe Bang Fai and the Nam Theun downstream from the dam, who are expected to lose their fisheries and other livelihood sources, have not been calculated as part of the project's risk assessment. These "involuntary risk takers" have still not been provided adequate opportunity to participate in decisions affecting their lives.

The WCD requires that all adversely affected people negotiate formal and legally enforceable agreements. This has never occurred at Nam Theun 2, and the concept of a legally enforceable mitigation agreement between affected peoples and project developers is virtually unheard of in Laos. For Nam Theun 2 to be in compliance with this stipulation, NTPC would need to negotiate legally binding agreements with all people likely to be affected by the project.

Furthermore, there are no independent organizations in Laos that are able to monitor the project and the commitments made by the GoL and NTPC if the project goes forward. The legal system is not sufficiently developed to provide possible remedies for affected people should the commitments made by NTPC and the GoL fail to materialize. The only avenues for independent monitoring are through international NGOs or other observers based outside the country, a poor and unacceptable substitute for local civil society groups and community-based monitors.

### Strategic Priority 6 - ENSURING COMPLIANCE

- 6.1 A clear, consistent and common set of criteria and guidelines to ensure compliance is adopted by sponsoring, contracting and financing institutions and compliance is subject to independent and transparent review.
- 6.2 A Compliance Plan is prepared for each project prior to commencement, spelling out how compliance will be achieved with relevant criteria and guidelines and specifying binding arrangements for project-specific technical, social and environmental commitments.

### Nam Theun 2 Compliance

During project preparation, the World Bank has been unable to ensure compliance from the Lao government on key issues such as logging. In 1995, the World Bank stated as a precondition of Bank support for Nam Theun 2:

Bank policies preclude our supporting the project if project execution has already begun... Any resettlement activities relating to the project should not begin until the Bank has reached a decision on whether or not to support it... The Government will need to demonstrate clearly that logging has been brought under control. <sup>55</sup>

<sup>&</sup>lt;sup>55</sup> The World Bank, "Aide Memoire on Nam Theun 2 Hydroelectric Project," November 9, 1995.

Since 1990, the military-run logging company, the BPKP, has cleared more than one million cubic meters of old-growth tropical pine wood from the reservoir area on the Nakai Plateau, in anticipation of the proposed project. As far back as 1995, the Wildlife Conservation Society noted that "this logging operation has resulted in many new roads and new settlements", which has had "major negative impacts on its wildlife importance." In addition, the logging has steadily eroded the natural resource base of the people living on the Nakai Plateau.

A World Bank mission to investigate logging in 2000 described logging in the community forestry areas as "systematic and large scale", and states that the livelihood model for resettled villages is "compromised to an unknown extent by logging of high value trees in the area." The Social Development Plan indicates that the viability of the production forestry option for the resettled villages is questionable since the area has "already been exploited for the better quality tree species of good form and dimension." These are serious breaches of the agreements between the GoL and the World Bank that occurred before the Bank formally committed to support the project, when it should have had the greatest leverage.

If the World Bank is unable to ensure compliance with conditionalities imposed prior to project approval, it is difficult to see how they will be able to ensure compliance once money and guarantees have been disbursed and the project is under construction. While the Concession Agreement outlines the GoL's and NTPC's obligations for social and environmental mitigation measures and some performance bonds have been proposed, there is no independent legal system in Laos through which the commitments to affected communities can be upheld. Furthermore, it appears that an assessment of compliance with the Concession Agreement, and a judgment that additional funds are required from NTPC to meet its obligations, will be made only by the GoL's Panel of Experts. This Panel has been promoting the Nam Theun 2 project for years and has a vested interest in the project's development. This presents a clear conflict of interest and does not make up for the lack of an independent judiciary or other appropriate legal mechanism to ensure compliance.

Based on past performance, serious doubts persist about the GoL's commitment to meet these obligations or other conditions imposed by the World Bank. Recent World Bank, International Monetary Fund, and ADB reviews have documented the GoL's commitment and capacity failures leading to missed reform targets and unfulfilled commitments. <sup>59</sup> There is no indication that World Bank loan disbursements or guarantee enforcement for Nam Theun 2 will be linked to fulfillment of GoL and NTPC obligations.

#### Conclusion

Nam Theun 2 fails to comply with six of the seven strategic priorities outlined in the WCD report, and it is difficult to see how the project could be brought in compliance in the foreseeable future. A fundamental problem is the political climate in Laos, which makes a truly open and

<sup>&</sup>lt;sup>56</sup> Wildlife Conservation Society, "Results of a Survey of Terrestrial Wildlife in the Area to be Affected by the Proposed Nam Theun 2 Hydroelectric Project," June 5, 1995, p.40.

<sup>&</sup>lt;sup>57</sup> The World Bank: World Bank Logging Survey Mission: Technical Report, Washington DC, 2000, p. 57.

Nam Theun 2 Social Development Plan, November 2004, Vol. 2, Ch. 23, p. 22.

<sup>&</sup>lt;sup>59</sup> See, for example, World Bank Operations Evaluations Department, *Project Performance Re-Assessment Report, Lao PDR, Second Structural Adjustment Credit*, June 24, 2004; International Monetary Fund, *Staff Report for the 2004 Article IV Consultation*, November 17, 2004; Asian Development Bank, *Technical Assistance to the Lao PDR for Preparing the GMS: Nam Theun 2 Hydropower Development Project*, November 2003; IMF Fiscal Affairs Department, *Lao PDR Public Expenditure Management Reform*, 2003; and World Bank, Asian Development Bank, IMF, *Lao PDR Public Expenditure Review*, 2002.

participatory decision-making process almost impossible. While there have been innumerable public participation workshops and meetings, most of these took place within the context of a decision already taken, seeking input solely on project design or mitigation measures. Indigenous people that will lose land or livelihoods to Nam Theun 2 have not given their free, prior and informed consent to the project, as defined by the WCD and international human rights conventions.

The Theun-Hinboun hydropower project, situated approximately 40 km downstream of Nam Theun 2, is an appropriate indicator of the types of impacts that can be expected at Nam Theun 2. At Theun-Hinboun, more than 25,000 people have still not received adequate compensation for impacts to fisheries, vegetable gardens, drinking water and other problems as a result of the project. The impacts at Nam Theun 2 are likely to be on a far grander scale, affecting more than 100,000 people dependent on the Xe Bang Fai for their livelihoods, and many thousands more living downstream along the tributaries of the Nam Theun.

Enforcing compliance is a fundamental problem within Laos. Laos' rudimentary legal, administrative and political structures make enforcement of GoL and NTPC commitments difficult. The World Bank has been unable to ensure compliance with conditionalities imposed prior to project approval, and thus it is difficult to see how they will be able to ensure compliance once money and guarantees have been disbursed and the project is under construction.

Considering Nam Theun 2's inconsistency and non-compliance with the strategic priorities of the World Commission on Dams, the World Bank should not provide guarantees and other assistance for Nam Theun 2, but instead should work immediately on developing alternative plans for conserving the watershed area and improving the livelihoods of people living on the Nakai Plateau.