



March 14, 2005

Mr. James Wolfensohn
President
The World Bank
1818 H Street, NW
Washington DC 20433

Dear Mr. Wolfensohn:

We, 153 civil society organizations from 42 countries, are writing to urge the World Bank to refuse to provide guarantees and credits for the Nam Theun 2 Hydropower Project in Laos. This project does not meet the World Bank's environmental and social standards and there is no evidence that the impacts of the project on local communities and the environment can be successfully managed. The negative track record of other dam projects in Laos and the government's failure to transparently manage revenues and respect the rights of its people provide a strong indication that the costs of Nam Theun 2 will dramatically outweigh any potential benefits. In fact, the Bank's December 2004 Country Economic Memorandum points to the weak governance environment in Laos and notes that without significant governance improvements upfront, natural resource revenues will not result in good development outcomes.¹

World Bank approval of the Nam Theun 2 project in such a poor governance environment, combined with inadequate due diligence and non-compliance with Bank policies, would set a dangerous precedent just as the Bank is preparing to increase lending for high-risk infrastructure projects. We see no evidence that the Bank has learned from past mistakes. Rather, we believe Nam Theun 2 is a regressive model that ignores best practices in water and energy planning, as outlined in the World Commission on Dams report.

More specifically, the Nam Theun 2 project does not meet the World Bank's own criteria for decision-making. Analysis conducted by civil society organizations, independent experts, and the World Bank and IMF, shows that the Lao government and Nam Theun 2 project developers have failed to demonstrate compliance with the three pillars of the Bank's Decision Framework, as evidenced below.

¹ The World Bank, *Lao PDR Country Economic Memorandum: Realizing the Development Potential of Lao PDR*, December 2004, p. 72.

World Bank Criteria #1 – The project must be embedded in a development framework, characterized by concrete performance, that aims to reduce poverty and protect the environment.

The justification for World Bank support for Nam Theun 2 hinges on the use of project revenues to benefit the poor. However, the Lao government's track record in transparent and pro-poor public expenditure management is overwhelmingly negative. Repeated World Bank efforts to ensure that the Lao government has an effective system of revenue management, adequate administrative capacity, budget discipline and transparency have largely failed.² The IMF Staff Report on Laos' 2004 Article IV Consultation notes that while "Lao PDR's recent macroeconomic performance has been relatively encouraging", "the pace of structural reform has remained slow, especially in the fiscal area."³ According to the IMF, "expenditure management remains weak, undermining the capacity of the government to deliver effective social sector programs."⁴

Measurement of compliance with this first pillar of the Decision Framework should also consider the government's concrete performance in managing other hydropower projects in Laos. Recently completed dam projects in Laos, three of which were funded by the Asian Development Bank, have devastated the livelihoods of approximately 58,000 people. Villagers at Houay Ho, Nam Leuk, Nam Song, Nam Theun-Hinboun and Houay Ho hydropower projects continue to suffer from a loss of fisheries, inability to cultivate vegetables along the riverbanks during the dry season, inadequate fresh water supplies and transportation difficulties. The Lao government has taken very few steps to improve the livelihoods of these affected communities. Where the government has acted, its efforts have been piecemeal and haphazard, and only after sustained lobbying and pressure from international NGOs. The Asian Development Bank has been equally deficient in monitoring projects post-construction and has failed to ensure that communities are not left worse off after project completion.

In a 2003 Technical Assistance Paper for Nam Theun 2, the ADB admits that

Lessons learned from ADB-funded hydropower projects in the Lao PDR indicate that planning, management, implementation, and monitoring of social safeguards and environmental mitigation measures and ethnic-minority programs are weak. The Government's capacity to implement large-scale complex hydropower projects still remains a major concern.⁵

² See, for example, World Bank Operations Evaluations Department, *Project Performance Re-Assessment Report, Lao PDR, Second Structural Adjustment Credit*, June 24, 2004.

³ International Monetary Fund, *Staff Report for the 2004 Article IV Consultation*, November 17, 2004, p. 4.

⁴ Ibid, p.6.

⁵ Asian Development Bank, *Technical Assistance to the Lao PDR for Preparing the GMS: Nam Theun 2 Hydropower Development Project*, November 2003, p.3.

While the GOL has taken recent actions to meet World Bank structural reform conditions in the lead-up to the Bank's Nam Theun 2 decision, the overall track record on financial management and on implementation of hydropower projects is overwhelmingly negative. Without a sustained commitment to reform, a demonstrated ability to manage revenues transparently for poverty reduction, and until the country's dam victims receive fair compensation for their losses, there is no justification for World Bank support for Nam Theun 2.

World Bank Criteria #2 – The project is technically, economically, and financially sound and adheres to the Bank's safeguard policies.

Independent technical reviews have revealed serious flaws in Nam Theun 2's environmental impact assessment and social development plan which call into question the project's viability, scale of impact, and feasibility of mitigation and compensation measures. The reviews by independent experts covered five different aspects of the project, including hydrology, water quality, impacts along the Xe Bang Fai River, the viability of the resettlement plans for villagers living on the Nakai Plateau, and the watershed management plan for the protected area. Reviewers found that the project documents lack critical analysis, baseline data and information, and that the project's plans for compensating affected villagers on the Nakai Plateau and along the Xe Bang Fai River have a high likelihood of failure. See Annex 1 for a summary of the major findings of the technical reviews.

The review of the project's hydrologic data calls into question the technical and economic viability of the project. The reviewers found that NTPC's analysis is so deficient that it is impossible to predict how much water will be available for power generation. According to the reviewers, the lack of long-term stream flow and rain flow monitoring, coupled with questionable statistical analysis techniques, makes the project "high risk for meeting its power generation predictions and for estimating potential project impacts."⁶ In addition, the project developers have undertaken no analysis of how global climate change might affect flows in the Theun River.

The problems with the project's environmental and social plans raise questions about the project's compliance with the Bank's safeguard policies. Our analysis leads us to the conclusion that the project, as it stands, violates the following World Bank policies:

- OP 4.01 Environmental Assessment – NTPC has failed to analyze impacts in all areas of influence, baseline data is inadequate, and not all affected people have been consulted.
- OP 4.04 Natural Habitats and OP 4.36 Forests – The project will significantly convert or degrade the Nakai Plateau, a critical natural habitat for endangered species such

⁶ Willing and Knoop, *Review of Hydrology Component of Environmental Assessment and Management Plan for Proposed Nam Theun 2 Hydropower Project*, January 20, 2005, available at www.irmn.org.

as the white winged duck and Asian elephant, and destroy the habitat of the endangered Big-headed Turtle.

- OP 4.12 Involuntary Resettlement – Logging of the Nakai Plateau in anticipation of the project resulted in the taking of land and related assets from affected people before compensation was paid. Failure to consult with all affected people also violates the involuntary resettlement policy.
- OD 4.20 Indigenous Peoples – The proposed livelihood systems for people on the Nakai Plateau are not adapted to the needs of the indigenous peoples, and the resettlement plan contains no assessment of the ability of resettled people “to obtain access to and effectively use the legal system to defend their rights.”
- Guidelines for Procurement under IBRD Loans and IDA Credits – The Head Construction Contract and Civil Works Contract 1 were awarded to members of the NTPC consortium without International Competitive Bidding as required by World Bank procurement guidelines.
- Operational Guidelines on the Economic Evaluation of Investment Projects – A World Bank-commissioned study found that Thailand has potential for demand side management, energy efficiency and renewable energy programs that exceeds Nam Theun 2’s output and that could deliver power to the Thai consumer at a cost 25% lower than Nam Theun 2.

A more detailed analysis of policy violations is included in Annex 2 to this letter.

With such massive inadequacies in baseline data, serious questions regarding the viability of mitigation and compensation programs, as well as clear violations of World Bank policy, the project clearly does not comply with the second pillar of the Bank’s Decision Framework.

World Bank Criteria #3 – The project must have broad support from international donors and civil society.

The World Bank, in its decision framework, states that “international civil society has a legitimate and strong interest in the project as well – particularly since local civil society is not developed and there are no local NGOs [in Laos]. Broad support from international NGOs, particularly those involved with environmental and social issues, provides much-needed comfort that the environmental and social issues relating to the project will be successfully managed in the event.”

We, 153 international NGOs and people’s organizations do not support World Bank involvement in the project. If the World Bank is to claim compliance with this pillar of the decision framework, it must indicate which civil society organizations support and endorse the project, and how this constitutes “broad support” from international civil society.

Nearly all of the comments and questions raised at the technical workshops in Tokyo, Bangkok, Paris, and Washington, DC – by participants including government representatives, academics, community representatives, researchers, and various NGOs – reflected concern

or criticism of Nam Theun 2 and proposed MDB support for the project. At this stage, no international civil society organization has expressed public support or endorsement of the project, and even IUCN and the Wildlife Conservation Society have backed down from their earlier endorsements of Nam Theun 2.

Mr. Wolfensohn, it has been more than a decade since the World Bank financed the disastrous Pak Mun dam project in Thailand. Laotians deserve much better from the international community than a repeat of Pak Mun, only far worse. Laotians deserve a bold new strategy for economic development, one that does not begin with destroying the very resources upon which their future depends. We urge you to resist a return to failed World Bank projects in these final few months of your presidency. Instead we hope that you will leave as your legacy a demonstrated commitment to a rights and risks approach to infrastructure development.


Approving Nam Theun 2 with its flaws in baseline data and analysis, as well as its violation of several safeguard policies, would set a dangerous precedent for the World Bank's high risk/high reward strategy, and would risk the lives and livelihoods of tens of thousands of poor Laotians. The World Bank has not met its decision framework for Nam Theun 2, and should not support the project.

We await your action and response.

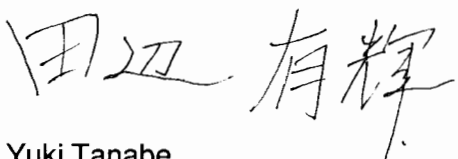
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ANNEX 1: SUMMARY: NAM THEUN 2 TECHNICAL REVIEWS

By May 2005, the World Bank and Asian Development Bank are expected to decide whether or not to finance the US\$1.3 billion Nam Theun 2 hydropower project in Lao PDR. If completed, the project would displace more than 6,200 indigenous people and negatively affect the livelihoods of up to 100,000 villagers living downstream.

The World Bank claims that the project has been carefully planned so that, unlike past hydro projects, people displaced or otherwise threatened will not be left worse off. As well, the Bank claims that the dam's negative environmental impacts can be successfully mitigated.

Because an independent review of the developers' plans is not possible in Lao PDR, International Rivers Network and Environmental Defense invited several experts in Thailand and the US to review the November 2004 drafts of the Nam Theun 2 Social Development Plan, Environmental Assessment and Management Plan, and Watershed Management Plan (SEMFO-1). The reviews are available at www.irn.org.

The reviewers found serious flaws in the Company's assessment of the Nam Theun 2 Project's environmental and social impacts. This not only casts doubt on the project's technical and economic viability, but also suggests that the risk of social and environmental failure is unacceptably high. The reviewers' key findings are summarized below:

Part 1: Hydrology

Hydrologists Dr. Peter Willing and Karla Knoop found that:

1. Due to the paucity of hydrological data, and questionable statistical analysis techniques, "the project is high risk for meeting its power generation predictions and for estimating project impacts."
2. The Nam Theun 2 Environmental Assessment and Management Plan (EAMP) contains no hydrologic analysis, but contains references to unpublished supporting work. For much of the critical hydrologic analysis on which depends the entire assessment of the performance of the project and its environmental consequences, the Nam Theun 2 project sponsors have not provided the underlying data or explained the methodology used, thereby making robust independent analysis impossible.
3. The project plans are based on a maximum of 18-years of stream flow and rainfall records, which is not a statistically valid basis for deriving 100-year and greater flood estimates.
4. Hydraulic modeling did not include the upper and middle reaches of Xe Bang Fai River even though significant changes in water elevations will occur and impacts should be assessed.
5. The project developers have undertaken no analysis of how global climate change might affect flows in the Theun River.

Review of Hydrology Component of the Environmental Assessment and Management Plan for the Proposed Nam Theun 2 Hydropower Project, by Peter Willing Ph.D. and Karla Knoop, January 20, 2005.

Part 2: Water Quality Impact Assessment

Aquatic Ecologist/Microbiologist Dr. Guy Lanza found that:

1. The data used to characterize the baseline water quality in the project area is wholly inadequate, and as result, accurate predictions of the water quantity and quality changes that will occur in the reservoir and downstream rivers are not possible.
2. No effective mitigation strategies are offered in the EAMP to address the potential for prolonged anoxia and resulting releases of nutrients and toxic gases in the Nakai reservoir, which will result in the loss of adult and juvenile fish and fish eggs.
3. The EAMP fails to comprehensively examine the possibility for toxic blooms of cyanobacteria and algae in the reservoir, which can produce severe sickness and mortality in humans, wildlife and livestock.
4. The EAMP provides no data on aquatic macroinvertebrates, which play a vital role in establishing and maintaining good water quality and are an important source of food to many fish and other species.
5. The reservoir will expand the habitat for vectors of major waterborne diseases known to inhabit the project site. As a result, diseases such as malaria, dengue fever, schistosomiasis, and liver fluke can quickly spread, posing additional health risks for the resettled populations.

Review of the Water Quality Assessment (Environmental Assessment and Management Plan) for the Proposed Nam Theun 2 Hydroelectric Project, *Guy Lanza, Ph.D., Aquatic Ecologist/Microbiologist, Environmental Sciences Program, University of Massachusetts, Amherst, USA, January 2005.*

Part 3: Downstream Fisheries Impacts on the Xe Bang Fai River

Fisheries and aquaculture specialist David Blake found that:

1. Nam Theun 2 “is likely to have multiple serious, negative impacts on the aquatic resources of the Xe Bang Fai and Nam Phit rivers. As predicted in the Social Development Plan, the Nam Theun 2 project is likely to cause a ‘collapse in the aquatic food chain’ from the Nam Phit down to the Mekong.”
2. The EAMP lacks scientific and rigorous analysis of impacts. Predictions of impacts on downstream fisheries are based on three dry season surveys only. No study of fish species and migrations during the rainy season has been conducted, despite a recommendation from NTPC’s fisheries consultant in 1996.
3. The EAMP has not been updated to reflect design changes (in particular, greater turbined flows down the Xe Bang Fai river) since the original impact predictions and recommendations were made in 1996. As water levels will be more than twice as high as was assumed in 1996, many of the predictions of potential impacts are now outdated and underestimated.
4. The submergence of rapids, which are an important habitat and spawning ground for fish and many other aquatic organisms, will have a major impact on the ability of these organisms to survive.
5. No assessment of the project’s impacts on non-fish aquatic organisms important for human consumption (i.e., mussels, shrimps, and aquatic plants) has been conducted.

A Review of the Nam Theun 2 Environmental Assessment and Management Plan as it pertains to impacts on Xe Bang Fai fisheries, David Blake, Mahasarakham, Thailand, January 2005.

Part 4: Compensation for Downstream (Xe Bang Fai) Communities

Fisheries and small-scale aquaculture specialist David Blake found that:

1. The Nam Theun 2 Power Company (NTPC) makes the unjustified assumption that loss of wild fisheries can simply be replaced by introducing aquaculture or animal-raising options to impacted villagers. This assumption shows that NTPC does not comprehend the social, economic and practical problems involved in attempting to introduce novel livelihood strategies to numerous geographically widespread rural communities, hitherto inadequately informed or prepared for the changes which they will experience post operations.
2. NTPC's goal of completing all mitigation and compensation activities within five years of commercial operation is unrealistic, and, if implemented, will leave villagers without adequate long-term livelihood options.
3. The Company wrongly assumes that aquaculture can be a direct replacement for lost capture fisheries, which ignores local experience and the fact that cultured fish do not have the same economic, nutritional or cultural value in the diets of Lao villagers. Based on experience in Lao PDR and Thailand, no more than 20% of households are likely to take up aquaculture. Due to the costs of purchasing fish seed and food, the poorest families would most likely miss out on the benefits of this activity.
4. 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.
5. Proposals to introduce alternative livestock production lack form and substance, nor do they build on the experience of the Theun-Hinboun Power Company, which has spent three years attempting with mixed results to introduce small livestock in dam-affected villages. The proposition that cattle will be preferred by villagers over small livestock and are feasible for mass extension is unrealistic given local constraints.

Review of the Adequacy of Compensation Measures for Communities Living Along the Xe Bang Fai River, Nam Theun 2 Hydropower Project, Lao PDR, by *David J.H. Blake, January 2005.*

Part 5: Agriculture and Livestock Development Plan for Resettled Villagers

A rural development specialist found that:

1. Irrigated farmland and intensive livestock-raising are two of the livelihood options offered as compensation by the Nam Theun 2 Power Company to resettled households but there is a high risk of failure for both.
2. *The resettlement site has extremely infertile soils that will require high inputs of both organic and inorganic fertilizers and lime. Villagers will be provided with support for these inputs for a period of 3-8 years. Because villagers have never had to make such high inputs before, the Social Development Plan notes the "very real likelihood" that villagers will not be willing - or able - to do so once the project ceases support. Cropping systems and fertilizer schemes proposed are untested and therefore experimental.*
3. *Though irrigated land for dry season rice cropping has been promised, the Social Development Plan acknowledges that this may only be feasible "in the longer term."*
4. The villagers will need to rely on markets for their livelihoods, yet the Nakai Plateau is an extremely remote area. In the early years of resettlement the construction camps will likely provide a market for the produce. However, if permanent markets do not develop, villagers will lose their market base after construction is complete, which will coincide with the cessation of agricultural support.

5. The reservoir will flood 45,000 hectares of prime buffalo raising pasture and the resettlement area does not have enough replacement land to support the resettlers' existing buffalo herds. Proposals for alternative forage production are inadequate, risky and untested.

Review of Agriculture and Livestock Development Plan for the Nam Theun 2 Hydropower Project, published by International Rivers Network, January 2005.

Part 6: Nam Theun 2 Reservoir Fisheries

Fisheries Biologist Eric Theiss found that:

1. 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."
2. Rather than introducing fish species into the reservoir, the reservoir fisheries plan recommends closing the dam gates after the migratory season and allowing native species to adapt to the changed conditions. However, the reservoir is likely to be anoxic (lacking in oxygen) during the first few years after impoundment as a result of decomposing biomass left in the inundation area. As fish cannot survive without oxygen, most of the fish trapped during the initial filling of the reservoir are likely to die during the initial years after dam construction.
3. Dam operations will shrink the reservoir to less than a fifth of its size during the dry season, which eliminates most of the underwater habitat. As the reservoir level decreases there will be less and less water capable of sustaining fish life. The deeper and relatively stagnant parts extending back from the dam are likely to be uninhabitable due to anoxic conditions.
4. Assuming there are fish to catch, the shallow depth and seasonal muddy drawdown of the reservoir would likely make subsistence fishing too costly and time consuming. Villagers would have to transport boats, outboard motors, and fishing equipment over long distances through deep mud to the lakeshore and back again.
5. At best, a small number of fish species could survive in the reservoir; at worst, the reservoir "will become largely devoid of life, except for invasive aquatic weeds and small islands of survivor fish species near the tributary mouths."

Reservoir Fisheries Predictions for the Nam Theun 2 Hydroelectric Project, Eric Theiss, Fisheries Biologist, Sustainable Environment Foundation, February 2005.

Part 7: Forestry Development Program for Resettled Villagers

A rural development specialist found that:

1. While NTPC has proposed community forestry operations for resettled villagers, the SDP admits that the profitability of the venture is unlikely. Past illegal logging activities have dramatically reduced the availability of quality timber in the resettlement area. In order to ensure profitability, tax concessions must be secured and post-harvest chemical treatment of timber must take place, but both of these are uncertain. If either one fails to materialize the viability of the entire plan will be jeopardized.
2. Villagers will lose a major part of their income from the collection and sale of non timber forest products (NTFPs), many of which will disappear once the reservoir is flooded. The community forestry area can be used to harvest some NTFPs, but a 1997 survey reveals that due to the poor soils, this area will produce "very few NTFPs". There are few plans for a

substitute NTFP base. In addition, the SDP does not address the fact that NTFP collection currently occurs in the proposed community forestry area by villagers who do not live on the Nakai Plateau. Their access to these NTFP collection sites will presumably be lost when the forestry development program is initiated.

3. The SDP recommends the establishment of the Nakai Plateau Village Forestry Association (NPVFA) to manage the forest area and harvest, process and sell the timber on a sustainable basis. Profits will be distributed equally between all the resettled households. From a managerial perspective, the operation of this association seems particularly optimistic given the present capacity of villagers and government staff.
4. NTPC plans to fund the forestry program mainly in the first year. After this time the forestry association will be on its own. Given the complexity and uncertain economic viability of the operation, NTPC should offer financial support for the first 5 years at least, until the forestry association establishes its viability.

Forestry Development Program for the Nam Theun 2 Hydropower Project: An Independent Analysis, Published by International Rivers Network, February 2005.

Part 8: Review of the Watershed Management Plan (SEMFOP-1)

Independent experts with extensive experience in conservation and development in the region found that:

1. The management of the Nakai Nam Theun 2 National Protected Area (NNT NPA) will be funded primarily by contributions from NTPC of US\$1 million per year. The provision of substantial funding alone is unlikely to result in the sound management of NNT. The main constraint to improved management of the area is poor institutional commitment and a lack of secure property rights for local people, not funding. If funds are used inappropriately, greater environmental degradation and negative impacts on the livelihoods of NNT's residents are possible and perhaps even likely.
2. Protected area management has a poor track record in Lao PDR. Independent monitoring of the SEMFOP, with linkages between funding and performance, is essential. The monitoring arrangement proposed in the SEMFOP fails the test of independence.
3. The SEMFOP proposes to use part of its funding to improve access into NNT. However, some of the most significant threats to the protected area, such as unsustainable wildlife trade, unsustainable commercial sale of some NTFPs, illegal encroachment logging, and excessive population growth, are likely to be made worse, not better, by increased access. This is especially true in light of the additional pressure on NNT that will result from the influx of around 20,000 construction workers and their families into the area.
4. The NNT NPA has several inherent management advantages, such as partial insulation from the insatiable market for natural resources, low population density, remarkably diverse agricultural systems, and the relatively stable, secure livelihoods of many of its residents. The SEMFOP does not adequately focus on simply protecting these advantages.

Review of the Nakai-Nam Theun Social and Environmental Management Framework and First Operational Plan (SEMFOP-1) for the Nam Theun 2 Hydropower Project, compiled by Environmental Defense, February 2005.

ANNEX 2: NAM THEUN 2 AND WORLD BANK POLICY VIOLATIONS

An initial analysis of Nam Theun 2's compliance with World Bank policies indicates that the project violates provisions of the following World Bank policies:

- OP 4.01 Environmental Assessment
- OP 4.04 Natural Habitats and OP 4.36 Forests
- OP 4.12 Involuntary Resettlement
- OD 4.20 Indigenous Peoples
- Guidelines for Procurement under IBRD Loans and IDA Credits
- Operational Guidelines on the Economic Evaluation of Investment Projects

OP 4.01 ENVIRONMENTAL ASSESSMENT

Violation 1: No analysis of impacts in all areas of influence

Paragraph 2 of OP 4.01 states that “EA evaluates a project's potential environmental risks and impacts in its area of influence”, which is defined as “The area likely to be affected by the project, including all its ancillary aspects, such as power transmission corridors, ... borrow and disposal areas, and construction camps...”⁷

The Environmental Assessment and Management Plan (EAMP) for Nam Theun 2 admits that many aspects of project design and construction have not been finalized yet, including the location of the saddle dams, the downstream channel, transmission lines and resettlement roads. As a result, the EAMP states that “the EIA of these components can only be preliminary in nature and limited to identifying the major areas of consideration.” The EAMP notes that the precise location of the quarries, spoil disposal sites, construction work camps and work areas “are yet to be determined”, and therefore, no Environmental Assessment of these activities has been undertaken, despite the fact that these will have significant impacts on the Nakai Plateau, Nam Phit and Xe Bang Fai ecosystems.⁸

In addition, a transmission line from the Thai border in the middle of the Mekong to the main substation at Roi-Et in Thailand, a distance of 161.2 km, will be built by the Thai utility, EGAT. This transmission line is part of the Nam Theun 2 project, enabling the delivery of power to Thailand. However, no environmental impact assessment of this transmission line has been undertaken, nor is one planned to be undertaken, because an EIA is apparently not required by Thai law.⁹ In this situation, World Bank policy requires greater due diligence than national law, yet the World Bank has done nothing to ensure compliance with its Environmental Assessment standards.

Violation 2: Inadequate baseline data

Annex B of OP 4.01 describes the required contents of an EA report for a Category A Project, which includes a requirement for baseline data which “assesses the dimensions of the study area and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences.”

⁷ As defined in Annex A, paragraph 5.

⁸ Nam Theun 2 EAMP, November 2004, Chapter 3, p. 109.

⁹ Asian Development Bank, “Summary Environmental and Social Impact Assessment, Nam Theun 2 Hydroelectric Project,” November 2004, p.42.

Independent reviews of the EAMP focusing on hydrology, water quality and Xe Bang Fai fisheries found major gaps in baseline data and analysis. Specifically, the review of the project's hydrologic data found that the analysis is so deficient that it is impossible to predict how much water is available for power generation. The reviewers found developers were relying on a maximum of 18 years of stream flow and rain flow monitoring, which is not a statistically valid basis for deriving 100-year and greater flood estimates.¹⁰

A review of the water quality assessment found that the EAMP fails to accurately predict water quality impacts post-impoundment because it uses models calibrated with limited and insufficient data sets. According to Dr. Guy Lanza,¹¹ the water quality data is “not sufficient either for use in estimating water quality changes in general, or for accurately calibrating water quality models.” In addition, the EAMP provides no data on aquatic macroinvertebrates, which play a vital role in establishing and maintaining good water quality and are an important source of food to many fish and other species.¹²

David Blake¹³ reviewed the EAMP's treatment of the project's potential impacts on fisheries in the Xe Bang Fai and other downstream rivers.¹⁴ Blake found that the EAMP was severely lacking in detail and rigorous scientific analysis. The official prediction of impacts on fisheries for the downstream rivers is based on only three field surveys, all conducted during the dry season. As a result, the EAMP likely underestimates the number of fish species present in the Xe Bang Fai, and contains no study of fish migrations in either the Nam Theun or Xe Bang Fai river basins. The EAMP also ignores the importance of other aquatic organisms 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.

In addition, the EAMP itself admits that the baseline data on wildlife species living on the Nakai Plateau and surrounding national biodiversity conservation areas are inadequate. According to the EAMP, wildlife surveys “employed relatively crude survey methodologies”, and “do not permit any measure of variability, statistical confidence, or assurance of completeness.”¹⁵ The last wildlife surveys were carried out in 1999, and no explanation is provided for the failure to conduct additional surveys.

Violation 3: Failure to consult with all project-affected groups

Paragraph 14 of the Environmental Assessment Policy requires the borrower to consult “project-affected groups and local nongovernmental organizations” and that these groups should be consulted “at least twice” — once before the terms of reference for the EA are finalized, and once a draft report is prepared. Villagers who fish along the Nam Theun river and tributaries downstream from the dam have never been consulted about the project. In fact, the only study

¹⁰ Willing and Knoop, *Review of Hydrology Component of Environmental Assessment and Management Plan (EAMP) For Proposed Nam Theun 2 Hydropower Project, Lao People's Democratic Republic*, January 20, 2005, available at www.irm.org.

¹¹ Professor Guy Lanza, PhD is an aquatic ecologist and microbiologist who is Director of the Environmental Sciences Program at the University of Massachusetts, Amherst.

¹² Professor Guy Lanza, *Review Of The Water Quality Assessment (EAMP), Proposed Nam Theun 2 Hydroelectric Project*, January 2005, available at www.irm.org.

¹³ David J.H. Blake is a specialist in tropical smallholder agricultural and aquaculture systems who has worked on various projects in Thailand and Laos for over 10 years.

¹⁴ David Blake, *A Review of the Nam Theun 2 Environmental Assessment and Management Plan (EAMP) as it pertains to impacts on Xe Bang Fai fisheries*, January 2005, available at www.irm.org.

¹⁵ Nam Theun 2 EAMP, November 2004, Chapter 3, p. 99.

on downstream impacts along the Nam Theun was commissioned belatedly in 2004 and only recently completed.

While some discussions with villagers along the Xe Bang Fai took place in 1997, these visits consisted of (a) disseminating information about the Project, (b) land use mapping and discussions about livelihood and (c) collection of statistics about each village.¹⁶ These cannot be considered consultations, especially as these discussions took place at a time when project authorities were claiming that there would be more water, and therefore more fish along the Xe Bang Fai, and were downplaying negative project impacts. Consultations with Xe Bang Fai villagers did not take place until the middle of 2004, thereby violating the requirement that affected people be consulted “at least twice.” In addition, villagers with assets on project construction lands are “yet to be consulted in detail about project impacts.”¹⁷

In addition, there are villages living on the north side of the Nam Theun river that will lose access to fisheries resources, but have never been consulted about the project. While they do not live directly along the river, they get a significant portion of their protein from the Nam Theun and one of its tributaries, both of which will be inundated by the reservoir. Villagers will not be permitted to fish in the reservoir, as this will be reserved for the exclusive use of displaced Nakai Plateau residents.

OP 4.04 NATURAL HABITATS AND OP 4.36 ON FORESTS

Violation 1: Degradation of critical natural habitats

Paragraph 4 of the Natural Habitats policy states that the “the Bank does not support projects that, in the Bank’s opinion, involve the significant conversion or degradation of critical natural habitats.” Critical natural habitats include “sites that are critical for rare, vulnerable, migratory or endangered species.” OP 4.36 on Forests includes a similar provision in paragraph 5.

At least nine rare, vulnerable or endangered bird species living in the wetlands of the Nakai Plateau will have their habitat destroyed by the reservoir. A population of white-winged duck living on the Nakai Plateau are some of the last 450 individuals surviving globally. According to the EAMP, the loss of their habitat to the reservoir “will likely result in their extirpation.”¹⁸

In addition, according to the EAMP, at least 120 endangered Asian elephants – approximately ten per cent of the total elephant population in Laos – live in one of the subpopulations inhabiting the Nakai Plateau. Another large sub-population living on the Plateau has never been surveyed so the total elephant population on the Nakai Plateau is unknown. The Nakai Plateau population is thought to be one of the largest wild elephant herds remaining in Laos, Vietnam, Cambodia or China. Considering the species’ precarious status in the Indochina region, the Nakai herd may be of critical importance to regional conservation of the species. The inundation and degradation of a large part of the Nakai Plateau would eliminate 95 per cent of the wetlands, almost all mineral licks, and large areas of forests and grasslands that are essential habitat for the Nakai elephants. It would also disrupt their migration routes. While the elephants will not die out immediately, the reservoir will affect their ability to survive, threaten their genetic viability and increase dramatically the potential for human-elephant conflicts. Currently there is no plan for how to deal with this issue.

¹⁶ Nam Theun 2 SDP Addendum, January 2005, Chapter 6, p. 9.

¹⁷ Nam Theun 2 EAMP, Chapter 5, p. 150.

¹⁸ Nam Theun 2 EAMP, November 2004, Chapter 3, p.106.

Downstream of the dam, NTPC's Riparian Release Study notes that the Big-headed Turtle, a species that IUCN lists as endangered, and that CITES lists under Appendix 2, has been observed only within the Nam Theun river valley directly downstream of the dam.¹⁹ The habitat for the turtle is the Nam Theun's fast-flowing water and rapids, which will be eliminated once the flow of the river is reduced to only 2 cubic meters per second.

OP 4.12 INVOLUNTARY RESETTLEMENT

Violation 1: Affected people not consulted

Paragraph 2b of OP 4.12 states that "Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs." The policy covers those people who suffer "direct economic and social impacts" including "loss of income sources or means of livelihood, whether or not the affected persons must move to another location". See section on consultation above (under Environmental Assessment) for explanation of how all affected people have not been meaningfully consulted about the project.

Violation 2: Nakai Plateau logged before compensation paid

Paragraph 10 of OP 4.12 requires that "taking of land and related assets may only take place after compensation has been paid". However, the Nakai Plateau was heavily logged in anticipation of the project, depriving resettled communities of significant income and livelihood sources. Widespread logging on the Nakai Plateau continued until at least the late 1990s despite a condition in a 1995 World Bank Aide Memoir requiring the government "to demonstrate clearly that logging has been brought under control" in order for the Bank to support the project.²⁰ Communities have never been compensated for these losses, and efforts to restore their livelihoods have been solely linked to the dam.

OD 4.20 INDIGENOUS PEOPLES

Violation 1: Proposed livelihood systems do not support production systems adapted to needs of indigenous people

OD 4.20 states that "Development activities should support production systems that are well adapted to the needs and environment of indigenous peoples, and should help production systems under stress to attain sustainable levels."²¹

Proposed development plans for indigenous peoples on the Nakai Plateau who will be resettled for Nam Theun 2 do not adequately consider the importance of rice production and buffalo-raising to their economic and cultural livelihoods. The project will supply only 0.16 hectares of irrigated paddy land for villagers, and the Nam Theun 2 Social Development Plan (SDP) admits that the soils in this area are "heavily leached and infertile" and that nothing will be able to be grown without extensive inputs of organic and inorganic fertilizer.²² Villagers will have to grow cash crops to exchange for rice, and villagers have expressed concerns about lack of sufficient

¹⁹ Dr. Benoit Laplante, *Economic analysis of the environmental and social impacts of the Nam Theun 2 Hydroelectricity Power Project, Final Draft Report*, February 7, 2005, submitted to the World Bank.

²⁰ The World Bank: *Aide Memoire on Nam Theun 2 Hydroelectric Project*, Washington DC, November 9, 1995.

²¹ Paragraph 14(e)

²² Nam Theun 2 SDP, November 2004, Chapter 21.

rice farming land and their dependence on selling crops to markets which currently do not exist.²³

The Nam Theun 2 reservoir will inundate 45,000 ha of prime buffalo-raising land.²⁴ Buffalo play a vital role in village life as well as in the village economy on the Nakai Plateau. The loss of buffalo for the people on the Nakai Plateau may not only be economically disastrous, but could cause great cultural upheaval for communities on the Plateau. Many villagers have expressed anxiety about their buffalo herds and fear they will have to sell their herds after resettlement because there will be a shortage of grazing land. The SDP admits that “it is generally assumed that buffalo-raising in the future will be restricted to a smaller area and thus it will be difficult to raise the same or more buffaloes than currently raised.”²⁵

Violation 2: No access to legal systems to defend their rights

Paragraph 15(a) of the Indigenous Peoples Policy states that the plan should contain an assessment of the ability of indigenous peoples “to obtain access to and effectively use the legal system to defend their rights.”

The grievance procedure that is briefly outlined in Nam Theun 2’s Social Development Plan entails a three-step process, the last of which is an appeal to the Provincial Court. However, there is no analysis of the political context in Laos and the impact that this will have on the ability of indigenous affected people to effectively use the legal system to defend their rights. Similarly, there is no discussion of the rudimentary nature of the court system in Laos, the gaps in due process and rule of law and the limitations this will impose upon people’s ability to defend their rights in court, or utilize the Project Grievance Committee established at the District Level.

GUIDELINES FOR PROCUREMENT UNDER IBRD LOANS AND IDA CREDITS

The World Bank’s Guidelines for Procurement under IBRD Loans and IDA Credits²⁶ require that for procurement under BOT concessions, either the initial BOT contract must be selected under International Competitive Bidding (ICB) procedures, or all goods, works or services required for the facility, and to be financed by the Bank, shall be procured in accordance with ICB provisions.²⁷ In the case of Nam Theun 2, the BOT concession was awarded to NTPC without International Competitive Bidding, and therefore, to be in compliance with World Bank guidelines, all construction contracts should be subject to ICB. Yet the Head Construction Contract and Civil Works 1 contract were awarded to NTPC shareholders and were not subject to ICB.

The World Bank claims that these guidelines do not apply because the World Bank’s involvement in the project would be limited to a partial risk guarantee. The Bank states that all goods and services procured under the Nam Theun 2 Social and Environment Project, an IDA credit, will be procured in accordance with ICB.²⁸ This claim is spurious because the \$20 million

²³ *Agriculture and Livestock Development Plan for the Nam Theun 2 Hydropower Project: An Independent Analysis*, January 2005, published by International Rivers Network.

²⁴ Nam Theun 2 SDP, November 2004, Chapter 21, p. 30.

²⁵ Ibid.

²⁶ Published in May 2004 and available at <http://siteresources.worldbank.org/INTPROCUREMENT/Resources/Procurement-Guidelines-November-2003.pdf>.

²⁷ pp. 29f. of the Guidelines

²⁸ Letter from Mr. Robert Mertz, NT2 Project Manager at the World Bank to Mr. Peter Bosshard and Ms. Aviva Imhof, International Rivers Network, February 11, 2005.

IDA credit will be used to essentially pay for part of the Lao Government's equity in the project by covering social and environmental mitigation measures.

OPERATIONAL GUIDELINES ON THE ECONOMIC EVALUATION OF INVESTMENT OPERATIONS

The World Bank's guidelines for the economic evaluation of investment operations, including electric power projects, states that the "Bank finances only those supply facilities and demand-management measures that help meet economically efficient demand at the least economic cost."²⁹

A study commissioned by the World Bank in 2004 found that Thailand's "realistically achievable potential" for renewable energy projects, as well as demand-side management and energy efficiency programs, exceeded the output of Nam Theun 2, and could provide Thai customers with power that is 25 percent cheaper than that from Nam Theun 2.³⁰ This study has never been released to the public, despite repeated requests for its disclosure by Thai and international NGOs.

Compiled by Environmental Defense and International Rivers Network, March 2005.

²⁹ OP 10.04 and GP 4.45.

³⁰ *Nam Theun 2 Hydropower Project: Impact of Energy Conservation, DSM and Renewable Energy Generation on EGAT's Power Development Plan*, Prepared for the World Bank, August 28, 2004.