

Nam Theun 2 Hydroelectric Project FREQUENTLY ASKED QUESTIONS

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This material is provided in response to frequently asked questions raised in the course of project implementation by project-affected people, civil-society organizations, the media, and other interested parties. Updated information on implementation progress will be provided on a quarterly basis, in addition to the World Bank's semi-annual reports to its Board of Executive Directors and other monitoring and evaluation activities undertaken by the project developers, the international financial institutions, and independent experts.

Section 1: Background

1. Why is the World Bank supporting this project? What benefits would this project bring to Lao PDR?

The Bank is supporting the project because it believes that Nam Theun 2 Hydroelectric Project (NT2), if properly managed and implemented, could significantly benefit the Lao people—among the poorest in Asia, with some of the lowest social indicators in the region—by generating a long-term revenue stream (US\$2 billion between 2010 and 2034) for increased investments in health, education, rural development, and other priority programs. Other benefits expected from the project include:

- improving the living standards of the 6,200 resettled people—doubling their household incomes to nearly US\$800 a year;
- enhancing livelihood opportunities for over 60,000 people living in the downstream areas of the Xe Bang Fai and Nam Theun Rivers, which may be affected, to varying degrees, by the power plant operation;
- protecting more than 4,000-square-kilometer Nakai Nam Theun National Protected Area, a unique biodiversity area, while also enhancing the livelihoods of the local communities living in the protected area;
- strengthening the country's public finance management system so that it can better target and account for moneys earned not only from NT2 but also from other hydropower and mining projects;
- building the country's capacity at the national, provincial and local levels through improved human resources development, better functioning institutions, and more effective policies; and
- transfer of the project to Lao PDR at the end of 25 year concession period free of cost (typical economically useful life of a hydroelectric project is expected to be at least one hundred years.)

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2. What kind of support and financing is the World Bank providing for the project?

Private companies, several public institutions, and the Lao government are financing the US\$1.45 billion hydropower project. The World Bank Group's support was provided to lower the project's risk profile for private investors, as well as to fund eligible environmental and social expenditures. Specifically, the Bank Group is providing:

- a US\$42 million IDA Partial Risk Guarantee;
- a US\$20 million IDA Grant for NTSEP (Nam Theun 2 Social and Environment Project, which finances a part of the GoL's equity in the project to be used for management of environmental and social impacts and independent monitoring and evaluation of the NT2 project); and

- US\$91 million in MIGA Guarantees.

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3. What measures have been put in place to ensure that the revenues from the project will be managed soundly and transparently?

To ensure that revenues from the NT2 project will be used transparently, accountably, and effectively to finance poverty reduction and environmental conservation, the World Bank and the Lao government have agreed on a program of public expenditure management reforms known as the Public Expenditure Management Strengthening Program (PEMSP), as well as specific revenue management arrangements for the project. These programs, including regular audits, reviews, and expenditure tracking surveys will make it possible to verify that NT2 revenues correspond to additional spending on priority poverty reduction and environmental conservation programs.

Under the [NT2-specific arrangements](#), revenues from the project will flow to a Central Treasury Account through two accounts—one for water resource user charges and taxes paid by NTPC and another for the Lao government's share of project dividends—both of which will be subject to audit, so that the flow of NT2 funds for debt service, for operating costs, and into the Lao budget can be tracked.

From the Central Treasury Account, amounts corresponding to NT2 revenues will be added to budget allocations for a set of priority poverty reduction and environmental conservation programs, themselves subject to audits following International Organization of State Audit Institutions (INTOSAI) standards and audit peer reviews. Because the ultimate test of the NT2 revenue and expenditure management arrangements is that the additional expenditures contribute to improvements in public service performance, and thereby to poverty reduction and conservation outcomes, regular Public Expenditure Reviews and Public Expenditure Tracking Surveys will be conducted under the PEMSP by the government and its development partners to assess the impact of additional public spending on, e.g., health and education indicators.

Finally, these audits and public expenditure reviews will form the basis of annual consultations between the government, NT2 financing partners, and other stakeholders. These consultations will provide an opportunity to assess compliance with agreed revenue and expenditure management arrangements and recommend adjustments as needed.

The government's first semi-annual report is expected to be released shortly.

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4. What measures have been taken to mitigate the social and environmental risks? Why should NT2 turn out differently from previous dam projects?

With the benefit of lessons drawn from international experience with dam projects, a comprehensive, proactive, and consultative approach to social and environmental risk mitigation was taken in the preparation—and now implementation—of NT2. The best-practice measures applied to the project include:

- The [resettlement](#) and downstream programs were designed in a development approach with a focus on livelihood restoration and community development (rather than one-off cash

compensation), that are being implemented in advance of the actual impacts so that communities can adapt to the changed circumstances.

- Long-term financing and detailed provisions for the management of the [natural habitats on the Plateau](#) and the [watershed](#)—a forest nine times the size of the reservoir to be conserved as an environmental offset—were agreed.
- The environmental and social programs comprise extensive baseline studies and continuous consultations to fill knowledge gaps, allow better community participation in the program design and implementation, and better monitoring of impacts on fisheries, livelihoods, wildlife habitats, and adjacent river systems.
- Detailed environmental and social objectives (e.g., income targets) are among the developers' legal obligations under the Concession Agreement, with financial provisions for addressing any un-anticipated impacts and other contingencies.
- In the implementation phase, the Bank remains closely engaged with the project developers and the Government of Lao, with technical staff visiting the project site frequently to monitor implementation progress and suggest ways to address issues as they arise. Implementation is done by the developer which is a private sector operator with high level of technical and management capacity with full cooperation and partnership of the GOL.

The development of such extensive mitigation, compensation, and contingency measures to address social and environmental impacts, including unforeseen ones, is unprecedented in the region, and reflects our strong concern that the project will deliver real, durable benefits to the people of Lao PDR, starting with the affected communities.

For more detail on progress in implementing social and environmental measures, [click here](#)

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5. What legal remedies would be available to the Bank if NTPC and/or the Government failed to implement their environmental and social obligations? Could the Bank suspend its assistance?

The Project Agreement and IDA Development Grant Agreement define the obligations of the Government of Lao and NTPC to carry out their obligations under the Environmental and Social Documents and Applicable Environmental and Social Safeguard Policies and Guidelines, and provide for remedies to be exercised in case of non-compliance with covenants defining such obligations. A process has been agreed upon through which any non-compliance situation must be discussed, documented and addressed. The Bank could take action, including suspension of its assistance, if it found that in light of the Bank's safeguard policies the Government and NTPC were not taking appropriate measures to remedy problems with the social and environmental aspects of the project. Other investors in the project are fully in line with the WB standards and also expect full compliance as part of their own agreement with the developer.

Section 2: Implementation Progress

World Bank supervision missions have focused, among other things, on the following issues related to project implementation, and have discussed them with NTPC, the Lao government, and the relevant [oversight bodies](#). The Bank's technical staff are actively monitoring these impacts and activities, and offer advice on issues as they arise and where appropriate.

Overall Progress

1. **Implementation of some aspects of resettlement, compensation, and environmental management plans has apparently proceeded somewhat slower than**

initially hoped. What types of leverage are the Bank and Asian Development Bank (ADB) exercising to accelerate implementation?

The Bank and ADB maintain an ongoing dialogue with NTPC and GOL on key issues, including modalities for remedying identified problems. Periodic technical visits by the field-based team members of the Bank, ADB and Agence Francaise de Developpement (AfD) are undertaken to assess progress and assist in resolving problems at the working level; biannual International Financial Institutions (IFI) supervision missions take stock of progress and address issues still pending resolution, escalating matters to management/official attention as needed. Moreover, the scope and format of these IFI visits is being revised to ensure effective monitoring is in place throughout implementation. Good progress is being made on social and environmental activities and these activities are increasingly better aligned with progress in dam construction.

Project Oversight and Monitoring

2. How is the delay in recruitment of two of three IMAs affecting project oversight and monitoring?

Although there have been serious delays in recruitment of the IMAs for resettlement and environment, progress is being made. GoL has been working on the selection process using World Bank guidelines, and selected specialists for the Nakai resettlement, Project Lands and environmental IMAs will be in place by the first quarter of 2007. IMA for the Downstream program is scheduled to be in place by June 2007. The heavy monitoring and supervision arrangements, including visits by the Environmental and Social Panel of Experts, Independent Advisory Group, and the Lenders Technical Advisor, together with internal monitoring efforts, have significantly compensated for the delays in the IMA recruitment.

Construction

3. Is construction on track? How does the construction schedule affect the social and environmental activities?

To date, construction activities are on schedule and should be completed in time for the reservoir to be impounded or filled in May 2008 and for the project to begin commercial operations in December 2009. Most excavation works have now been completed, reducing the risk of costly delays. Encouragingly, construction is increasingly better-aligned with social and environmental activities, including preparations for the resettlement of villagers near the coffer dam, and there have been few accidents and grievances related to construction. The international financial institutions are monitoring these activities closely.

4. Have interim milestone dates been established for satisfactory completion of the yet to be completed actions, especially those sensitive to the construction schedule?

NTPC works closely with the Head Contractor in developing and maintaining a detailed overall project schedule, including interim milestone dates. Monitoring and supervision activities pay particular attention to time-sensitive critical path actions that could impact the overall project timetable. The IFI visits, particularly the technical visits prior to the larger IFI supervision missions, as well as the close interactions with NTPC and GOL staff in Vientiane, also give the institutions an opportunity to follow up on the progress of outstanding issues.

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5. Is the World Bank monitoring the social and environmental impacts of the construction activities?

The Lenders' Technical Advisor visits the project site on a quarterly basis to ensure that environmental impacts of construction are mitigated in compliance with the Concession Agreement, and World Bank technical staff follow up on these visits and NTPC's own reports. There is particularly effective coordination between NTPC and the local authorities to protect physical cultural resources, implement local health programs, and prevent camp follower related impacts. Provision of catering and recreation facilities and strong messages on hunting and fishing have been successful in controlling prohibited activities such as capture or purchase of wildlife near construction areas and camps. A comprehensive water quality monitoring, carried out since early 2005, enables sending early warnings (and trigger response by contractors) in case of construction impact, as well as identify the source of problems raised by local villagers, sometimes not linked to construction activities.

Standards of construction management are generally good, although there have been some issues with erosion control, sediment run-off into a stream near the powerhouse, dust levels during the dry season, and waste management. Progress has been made in each of these areas, with the project landfill re-designed to meet international standards; improved designs for sediment ponds; re-vegetation and erosion control measures; a waste management facility to ensure sorting and recycling of waste materials from all the construction sites and camps; and road pavement and increased frequency of road watering to control dust.

To anticipate construction-related risks, Bank staff have urged stronger coordination of the construction schedule and the preparation of site-specific environmental plans—which NTPC has done, with regular reviews undertaken jointly with the Head Contractor. Compliance with these documents is essential to mitigate the impacts of construction activities such as vegetation clearance, erosion control and waste disposal.

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Nakai Plateau Resettlement and Livelihoods

6. Where does the resettlement program stand? How are the villagers coping in the transition?

The Nakai resettlement program experienced delays in the early start-up phase due to a number of reasons, including excessive flooding during the 2005 wet season and timber availability and slow mobilization of appropriate staff. To overcome the delay, an accelerated resettlement program was put in place. As of January 2007, 624 households from eight villages have moved into their final resettlement sites. Temporary housing and basic infrastructure have been provided at their resettlement sites. Permanent housing is now under construction in these villages. A transitional support package is being provided to all resettler households including rice allowance and protein sources. Those households who have moved are benefiting from the better housing, infrastructure and other transitional assistance, which have helped them cope better with the difficulties after the wet season. For two villages among the first group, the process of finalizing the resettlement sites is still ongoing. GOL and NTPC have been working with the villagers on acceptable and feasible resettlement options. The World Bank has hired an indigenous expert with rich working experience in this area, to assess the efficacy of and assist in the consultation process with the villagers. Resettlement site preparation is ready to start for the second batch of villages, which are scheduled to move by July 2007.

Livelihood development programs are the core and most critical component of the resettlement program. It has begun for the plateau villages, with village resources mapping and village boundary demarcation well in progress. Additional livelihood activities have also begun, following resources mapping, for livelihood potential assessment and village livelihood activities planning taking into account experiences of the pilot village and experimental farms. These livelihood activities have already started, with extension centres established, staffed and already providing services to the villages. In addition, a strong emphasis has been put on the agriculture and livestock activities since the last wet season, with a reinforcement of the technical assistance, improvement of coordination with the local and national administration, and development of new approaches and activities. The fisheries program is currently being designed at an operational level, in order to start the activities during the 2007 wet season. A better integration of all these components has also been worked on over the last year. Nevertheless, the program is still at the start-up phase and there are further tasks and challenges ahead for the detailed program to be fully developed and implemented. There is keen awareness of the challenges among all parties. The IFIs will continue to advise, support and monitor the development and implementation of the livelihood programs.

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7. As part of the livelihood programs, villagers are expected to draw income from the cultivation and sale of cash crops. What are the potential markets for these products?

As part of new livelihood options, villagers in the Plateau are strengthening skills and techniques in vegetable production and activities such as weaving. At present, there is a limited local market in the Plateau, but there is a substantial market for these products in Oudomsouk during the construction phase, due to the large number of construction workers. However, it will be necessary to find additional, stable markets for these crops and products, particularly after the dam is completed. To address this NTPC has been working on marketing studies exploring potential options in Thailand and Vietnam, among others. Further planning efforts will be carried out following the studies to address the marketing challenge.

The proposed suite of livelihood activities allows use of the villagers' traditional skills but adapted for sustainable agricultural activities in the resettlement zones. These activities are not dependent on markets and, therefore, provide additional food security for the villagers.

Downstream

8. The downstream program was supposed to assist villagers 'well in advance of project impacts'. What progress has there been? What's the status of the downstream report?

The downstream programs are designed with a focus on livelihood restoration and community development (rather than one-off cash compensation), which are being implemented in advance of the actual impacts so that communities can adapt to the changed circumstances.

Work on the downstream program—designed to provide investment activities to compensate for fishery losses—has begun, with 21 pilot villages participating in alternative livelihood development, surveys ongoing in the rest of the downstream villages, and strong involvement at the provincial, district, and village levels. Villages have started testing the use of revolving funds to provide micro-credit for different types of income-generating activities (e.g., horticulture including vegetables and fruits, aquaculture, irrigated rice, animal husbandry, and cottage industries).

Approximately half of the downstream program is scheduled to be financed in advance of the dam's commercial operation date (COD) of December 2009 with priority going to riparian villages expected to have greatest impacts.

The wider downstream program includes a plan to improve water supply, sanitation and health; to mitigate impacts during the dry season on transport across the Xe Bang Fai and its tributaries; to replace riverbank gardens; increase production and improve livestock health and survival. In addition, to enhance the livelihood through the mitigation of flooding in the lower Xe Bang Fai, a system of strategically placed mini-polders has been designed. A first set of pilots is to be built by the 2007 rain season. To date, coordination with NTPC staff has effectively served to anticipate risks and monitor potential impacts to downstream communities.

The Downstream Livelihood and Asset Restoration Program report, prepared by NTPC, has been completed. It is waiting to be reviewed and approved by GOL and, afterwards, the International Financing Institutions. Implementation of the key activities such as village development committees organization and the above-mentioned pilot activities are proceeding in the mean time.

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Project Lands

9. What is the status of the compensation payment and livelihood restoration programme in the so-called 'Project Lands'?

NTPC is currently in the process of providing final payment to those households entitled to cash compensation, with progress varying according to the different areas of project activities. At the same time, interim compensation commensurate with degree of impact has been paid for the loss of income from crops, gardens, timber, and non-timber forest products acquired for the project. For the seriously affected households, interim compensation will continued to be paid until their livelihood is restored.

NTPC is updating five Resettlement Action Plans for the Project Lands, based on socio-economic surveys, including a ranking of problems and preferences for livelihood options and review comments from the international financial institutions. NTPC and GOL have also mobilized a team of various experts to work with villages on livelihood programs. Various livelihood programs have already begun, particularly in the Gnommalat District, where major land acquisitions have taken place. The international financial institutions are monitoring implementation of these plans.

In response to a number of complaints related to compensation in the Gnommalat area, NTPC and GOL carried out the review in the villages that reportedly filed complaints, covering compensation paid, evaluation process, and any grievances people may have. This review process found that complaints were largely due to misunderstandings about project resettlement policies and entitlements. Findings of this review were confirmed by IFI and Lender's Technical Advisors during their subsequent visits. The international financial institutions have recommended more proactive communications and consultations by NTPC and GOL to ensure that villagers understand the project resettlement and entitlement policies.

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Salvage Logging and Reservoir Clearance

10. How is the logging of the future reservoir being managed to mitigate impacts on villagers' livelihoods and the environment? How will logging activities be monitored?

The government has been advised to treat salvage logging—which would provide an additional source of revenue for Lao PDR—and reservoir clearance as distinct operations, and to proceed with logging whilst continuing to assess the need for further removal of vegetation or biomass to improve water quality and navigation in the future reservoir. On this advice, the Lao government is reviewing options for managing these clearance activities, based on an inventory of timber resources and on consideration of potential social and environmental impacts. Most of the villagers have already moved to new sites, and are little dependent on the reservoir area for their incomes. Work on clarifying rights and regulations with respect to forest resources is ongoing and will allow local activities—such as firewood collection and charcoal production—to proceed in a safe and orderly manner, with minimal disruption, influx of outsiders, and adverse environmental impacts on the future reservoir and surrounding forest.

Salvage logging authorized by the Lao government has already begun and will be completed before impoundment of the reservoir in May 2008. While there is no mention of an independent monitoring body of salvage logging in the legal documents, in order to ensure prudent management of the operations, the government has appointed a field supervision team to work with the contractor responsible for harvesting and delivering the logs to landings, and is coordinating with other government agencies. This system of joint monitoring of the salvage logging includes staff from the Ministry of Agriculture and Forestry (MAF), who carry out joint field inspections with members of the Environmental Management Unit (EMU). Moreover information is being shared between project implementing agencies through regular coordination meetings.

11. How is the clearance of the future reservoir being managed to mitigate impacts on villagers' livelihoods, the environment, and future water quality? According to the latest progress report, no decision has been made on how much biomass will be cleared. When will the results of the ongoing review be made available and resulting clearance program be determined?

The need for a broader program to remove vegetation or biomass from the inundated area in order to manage water quality or to improve reservoir navigation is being discussed, and will depend on the expected severity and duration of effects on water quality, given the particular characteristics of the future reservoir. Although NTPC has no specific obligation to clear the reservoir, the [Concession Agreement](#) does commit them to achieving regional water quality standards. The Bank recognizes that biomass clearance is an important issue, and is following this issue closely.

NTPC is in the process of engaging consultants to consolidate an overall strategy for reservoir impoundment, including various options and trade-offs for biomass clearance. NTPC will finance this reservoir impoundment study which will include a review of biomass clearance needs, costs, and alternative approaches. The IFIs have been provided an opportunity to comment on the draft Terms of Reference for this study and selection of specialists is currently being carried out. Furthermore, the Bank has reviewed past assessments and has discussed different options for biomass clearance, taking into account a complex range of variables, to inform its own position in advising and assisting NTPC and GOL in the assessment and development of reservoir clearance options.

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Wildlife and Watershed Management

12. How is the construction activity on the Nakai Plateau affecting the elephants? What is the status of the elephant study, and when will the report be released to the public?

As elephants are known to adapt their habits to circumstances, changes in the elephants' existing distribution and movement patterns in response to human activity and land use may already be underway. Physically capable of crossing much larger water bodies than the future reservoir, elephants have recently been reported, for the first time in a decade, to have moved back into the watershed area, which now receives increased protection through the project.

The project developers have commissioned the Wildlife Conservation Society (WCS) to study the size, distribution and movements of the elephant population in the area, and thus to understand the potential impacts of NT2 on the elephants. The first phase of this elephant study—which lays the basis for development and implementation of a program to manage impacts on the elephant population—has been carried out, and the final report is in being submitted for final comments to NTPC. Current assessment indicates that between 80 to 96% of the elephants' habitat will remain accessible to them after flooding, which will be enough to sustain the current population, estimated around 150 heads. WCS and NTPC are discussing contractual arrangements for the second phase, focused on management of impacts and human-elephant conflict, with an interim arrangement allowing fieldwork to continue.

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13. What measures are being taken to protect other wildlife on the Plateau?

NTPC has carried out updated aquatic wildlife surveys and recruited a team of consultants, including top field biologists with experience in Lao PDR, to undertake terrestrial and wetland surveys and prepare management strategies under its Wildlife Program on the Nakai Plateau.

The project has taken a firm stand on wildlife consumption and trade, with regular information and education provided to the staff, and workers dismissed if they break contractual agreements not to carry out these activities. Inspections by project monitors have found that these policies have been successful in keeping instances of wildlife exploitation by workers to a low level. In the Watershed Area regular patrolling is being carried out to protect wildlife within an integrated conservation and development program. The project is also starting a program of wildlife education activities with resettlers. Nevertheless, wildlife trade is a difficult issue in Lao PDR, which has been highlighted by the POE, and is expected to be given considerable attention in the management plans developed under the Wildlife Program.

For more background on measures to protect wildlife and natural habitats in the NT2 project areas, click [here](#) and [here](#).

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