UPDATE ON THE LAO PDR: NAM THEUN 2 (NT2) HYDROELECTRIC PROJECT

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Map. IBRD 34123
UPDATE ON THE LAO PDR: NAM THEUN 2 (NT2) HYDROELECTRIC PROJECT

I. Introduction

1. This update reports on key developments relating to the Lao PDR Nam Theun 2 Hydroelectric project (NT2) since World Bank (WB) Board approval on March 31, 2005 and Asian Development Bank (ADB) Board approval on April 4, 2005. The management of the two Banks have agreed that they will keep their respective Boards informed on the implementation of the NT2 project through joint reporting on an annual basis, starting February 2006, supplemented by semi-annual updates.

II. Financing

2. Following (a) World Bank Board approval of the International Development Association (IDA) Partial Risk Guarantee, the Multilateral Investment Guarantee Agency (MIGA) Guarantees, and the IDA Grant to the Lao PDR (GOL); and (b) ADB Board approval of the private sector loan from the ordinary capital resources (OCR) facility to the Nam Theun 2 Power Company Limited (NTPC), the Political Risk Guarantee, and the public sector loan (OCR) to GOL in connection with the NT2 project, a total of US$1,450 million equivalent (excluding bonding facilities) in U.S. dollars and Thai Baht have been committed by various financing partners to fund the base project cost of US$1,250 million, plus an additional US$200 million for contingency. Annex 1 shows the final financing plan for the NT2 project, depicting the contribution of various financial partners.

3. The IDA Partial Risk Guarantee (covering US$42 million of principal) and the IDA Development Grant Agreement (US$20 million) to the Lao PDR (GOL) for the Nam Theun 2 Social and Environment Project (NTSEP) became effective on June 10, 2005; the MIGA Guarantee for debt (US$85.6 million, covering US$42 million of principal) and the MIGA Guarantee for equity (US$5 million) became effective on June 14, 2005 and June 17, 2005, respectively. The ADB direct loan (US$50 million) and ADB Political Risk Guarantee (covering US$42 million of principal) became effective on June 10, 2005, while the ADB public sector loan to the GOL (US$20 million) became effective on June 14, 2005. As expected in such large private project financings, there were over three hundred conditions precedent to be met by NTPC (Nam Theun 2 Power Company Limited) before the lenders would allow disbursements under their loans; NTPC completed such requirements, with a few limited waivers, by June 10, 2005. On June 15, 2005, subsequent to Financial Close, all of the commercial, bilateral and

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1 It may be noted that the IDA Lao PDR Environment and Social (LEnS) project, which complements NT2, is being presented to the WB Board of Executive Directors on June 30, 2005, under streamlined procedures.
2 The Agence Francaise de Developpement (AFD), the Nordic Investment Bank (NIB) and the European Investment Bank (EIB), Export Credit Agencies (Coface, GIEK and EKN), nine US$ commercial lenders and seven Thai Baht commercial lenders.
3 As part of NTPC’s optimization of the financing plan, the IDA PRG, the MIGA PRGs and the ADB PRGs were each lowered to US$42 million, based on actual requirements, as shown in Annex 1.
multilateral lenders and guarantors allowed NTPC to make its first drawdown on the several debt facilities.

4. Completion of the NT2 project financing entails a number of "firsts." NT2 is the largest ever foreign investment in the Lao PDR, the world’s largest private sector cross-border power project financing, the largest private sector hydroelectric project financing, and one of the largest internationally-financed independent power producer (IPP) projects in Southeast Asia since the 1997 financial crisis.

III. Project Launch

5. A project launch workshop was held on June 6-9, 2005 in Lao PDR to bring together representatives of the GOL, financial institutions and their professional advisors, and management and shareholders of NTPC to discuss and agree on a structure for effective project implementation and oversight. Following the workshop, a project site visit took place on June 10-12, 2005 providing an opportunity for representatives of the international financial institutions (IFIs) to observe the progress of construction works and to visit some villages that will be affected by the project.4

6. Based on the critical importance of ensuring timely implementation, the IFIs have decided to give priority to field-based supervision with regular supervision visits from headquarters personnel. To coordinate with technical specialists from the GOL, NTPC, and the Head Construction Contractor (HCC) on an ongoing basis, field-based staff are being deployed by ADB (hydropower specialist in Vientiane and a resettlement/social development specialist in Bangkok), WB (resettlement specialist in Bangkok and environment specialists in Bangkok and Vientiane), and AFD (infrastructure specialist in Vientiane). Based on agreement among the concerned parties, arrangements for technical monitoring and reporting by NTPC, the GOL Engineer (GOLE), the Lenders’ Technical Advisor (LTA) and the Dam Safety Review Panel (DSRP) have also been put in place. The GOLE would visit the project site once every quarter (timed to overlap with the periodic visits of the DSRP), with additional visits as required in the interim, and is also considering stationing a full-time engineer on site to ensure careful oversight and prompt attention to problems as they may occur.

7. A schedule of supervision missions and site visits was also agreed at the project launch. NTPC would expect quarterly supervision missions from the LTA and the IFIs, supplemented by monthly visits by IFI field-based staff which would also be open to all lenders and advisors. It was also agreed that IFI staff would undertake additional ad hoc field visits (together or separately), in special circumstances, if there are any urgent/serious issues to be addressed. NTPC proposed that all supervision missions, including those of the various independent monitoring and advisory agencies (DSRP, GOLE, International Advisory Group (IAG), Independent Monitoring Agencies (IMAs), and Panel of Environmental and Social Experts (POE)), take place concurrently, to the extent possible, to minimize the disruption to project implementation. All entities involved in supervision have agreed to try to combine their missions to the extent possible.

4 During this site visit, participants also toured the ADB-supported 210MW Theun-Hinboun hydropower facility, owned and operated by the Theun-Hinboun Power Company.
IV. Monitoring and Evaluation

8. NTPC has agreed to a common framework of conditionality and a common set of principles and requirements that govern implementation of the project. This framework is laid out in the Common Terms Agreement (CTA, May 2005) agreed among all key parties including NTPC and the financing institutions involved in the project. Although IDA is not formally a party to the CTA, it is under the terms of the CTA a “beneficiary party” of Schedule 11 of the CTA which defines the environmental and social obligations of NTPC. The CTA sets forth the terms of reference for the LTA (Lenders’ Technical Advisor) to monitor the project on behalf of all of the commercial, bilateral and multilateral lenders. The LTA contract was signed on May 20, 2005. Funded by NTPC, but managed on behalf of all the financial institutions by the Intercreditor Agent (ICA), this contract will provide regular oversight by qualified consultants on all key aspects of the dam project throughout the construction and operational phases of the project until the commercial loans are fully repaid in 2017. In addition, public expenditure reform and NT2 revenue management arrangements will be supervised separately by a joint WB-ADB team as an integral part of the project.

9. Under the CTA, the WB was appointed the “Representative IFI” on behalf of the IFIs (the international and bilateral development and export credit agencies). In this role, it is responsible to ensure prompt attention to issues of concern to the IFIs, especially on technical, environmental and social measures, and to ensure that their views are consolidated and expressed in a timely manner to NTPC. In turn, NTPC will be preparing monthly progress reports (the first one issued in June 2005 covering May 2005) covering construction, construction-related environmental and social (E&S) obligations of the HCC (Head Construction Contractor) and the E&S responsibilities of NTPC and the GOL. In addition, NTPC will prepare more comprehensive semi-annual project progress reports (including a section on environmental and social aspects) that will be made public in accordance with the terms of the Project Agreement.

V. Project Construction Activities

10. The Nam Theun River is expected to be diverted in early 2006, which will enable construction of the dam; impounding of the reservoir will start in 2008 and NT2 commercial operations are planned to start in late 2009. Preliminary construction activities (PCAs), which have been necessary to give a head start to the project in order to meet its tight deadlines, started as early as December 2003. These activities included site mobilization; construction of access roads and worker’s residences; establishment of aggregate quarries and cement batching plant; unexploded ordnance (UXO) clearance; excavations for key components like the dam, river diversion tunnel, intake channel, access tunnel, power house; and design of the downstream channel (see Map). Five subcontracts – three for civil works and two for electromechanical systems – came into effect on April 1, 2005 and the Head Construction contract came into force on May 15, 2005. With the achievement of the Financial Close in mid-June, the HCC will progress into the main construction activities, in line with the Project Implementation Plan (PIP) and the Annual Implementation Plan (AIP). Currently, the site work force numbers about 2,300 – of which 80 percent are Lao nationals. This number would increase to about 4,000 by the end of 2005. With the oncoming wet season, surface construction activity will slow down, but work will continue at normal pace inside the tunnels.
11. Environmental, safety and health management measures, including erosion and sediment control, water quality monitoring, hazardous material and waste management, road safety, disease prevention and medical emergency – have been effectively put in place. Of the US$19 million spent on preliminary construction activities so far, about US$3 million has been spent on environmental and social measures. The operation for salvaging wood from the reservoir area will be significant, amounting to about 770,000 cubic meters. With the help of international consultants, a salvage logging plan is currently under preparation, after which contracts are expected to be awarded within this calendar year to two or more companies to accomplish the task.

VI. Environmental and Social Aspects

12. The implementation of the project’s environmental and social safeguards aspects is progressing satisfactorily. The major events that have taken place since Board approval are summarized below:

(a) The Concession Agreement, including its Schedule 4 related to environmental and social obligations and plans, has been amended to include all agreed environmental and social safeguard obligations of NTPC, and is consistent with the legal agreements of IFIs.

(b) The Project Implementation Plan (PIP) has been finalized. Draft versions were reviewed and the final PIP was found satisfactory by the IFIs. The PIP further elaborates the implementation arrangements contained in the safeguard documents and Schedule 4 of the Concession Agreement. The preparation of the AIP for 2005/06 is, however, slightly behind schedule. A draft version provided to the IFIs on June 15, 2005 is expected to be finalized by July 15, 2005. The NTPC has confirmed that the main construction activities will commence only after a satisfactory AIP is finalized.

(c) The core staff needed by GOL and NTPC have been recruited. The Environment Management Unit (EMU), the Resettlement Management Unit (RMU) and the Watershed Management and Protection Authority (WMPA) are now operational, and the core technical, administrative and financial staff have been hired or contracted; however, the selection of long-term technical advisors for GOL (EMU, RMU and WMPA) are behind schedule by one to three months due to a delay in initiating recruitment.

(d) The Head Construction Contractor's Environmental Monitoring and Management Plan (HCCEMMP), including the main plan and 10 sub-plans, has been endorsed by GOL and NTPC. The HCCEMMP is consistent with Schedule 4 of the Concession Agreement and the PIP. In addition, 24 Site-specific Environmental Plans (SSEPs) have been prepared by the head contractor and are currently being reviewed by NTPC and GOL.

(e) Pre-construction activities. To date, no significant “non-compliance” has been reported. However, the LTA’s visit in March 2005 highlighted three areas where greater attention was required during the construction phase: (i) erosion control; (ii) improving catering facilities to the workforce to prevent poaching of wildlife; and (iii) proper storage of hazardous materials including oil. NTPC has initiated corrective actions for all three of these areas.

5 The main provisions of the Concession Agreement, including Schedule 4 (Environmental and Social obligations), have been publicly disclosed through the NTPC and GOL websites. These are: www.namtheun2.com and www.poweringprogress.org, respectively.
Conservation programs including wildlife management are progressing satisfactorily. The WMPA has completed the demarcation of 235 km of the southern boundary of the NT2 watershed, the first of its kind in Lao PDR. WMPA has contracted the Wildlife Conservation Society (WCS), an international operational nongovernmental organization, to assist them in undertaking a baseline biodiversity assessment, and is also strengthening its patrolling and monitoring capability. The WCS-led survey of Asian elephants is ongoing and a management plan will be prepared at the end of the year.

Detailed village planning has started for the first group of nine villages that will be resettled during the 2005-2006 dry season. The emerging lessons from the pilot resettlement village in the Nakai Plateau are promising. Many households that moved into the pilot village in the last three years have already surpassed the household income target just from the sale of their agricultural produce. They are not yet self sustaining, however, as agricultural inputs are still being subsidized by the project. The subsidies and transitional assistance are to be phased out gradually as the full range of options under the livelihood program falls into place. Markets are limited to local and particularly project demand, and a more extensive marketing system has yet to develop.

Detailed resettlement plans are now being prepared, in accordance with the policy framework contained in the Social Development Plan, for project construction lands (project lands) for IFI approval before their implementation. Baseline studies including socioeconomic surveys and consultation, inventory of lost assets, and valuation, have been completed for all project lands that will involve land acquisition impacts. Provisional compensation for loss of crops, caused by preliminary construction activities, has been provided until the full implementation of the resettlement plans commence.

The selection of independent monitoring agencies (IMAs) for EMU, RMU and WMPA has begun, and is expected to be completed in the next three months.

Attention was drawn at the Board discussions to the importance of addressing the environmental and social issues relating to the Theun-Hinboun Hydropower project, an ongoing project that commenced commercial operations in 1998 and involved GOL, ADB and private financiers. It may be noted that a ten-year mitigation and compensation program (MCP) was agreed upon in June 2000 and an Environmental Management Division (EMD) established within the project entity in 2001 to implement it. The MCP is a comprehensive plan and takes a participatory approach towards its implementation. The EMD is addressing the issues raised in the MCP dealing with 3,000 families in 57 villages. A detailed fisheries study was completed in late 2004 and the project entity also conducted several erosion and sedimentation studies for downstream areas. The project authorities report that compensation for land loss due to riverbank erosion has been already disbursed while other claims are being handled through direct consultations with project affected persons. An independent review of implementation of MCP is planned every two years, with the first one undertaken at end-2004. GOL is also making available periodic status and progress reports on the above activities. Appropriate information will be included in the annual implementation report/semi-annual updates prepared for the Boards of the ADB and the WB, so that progress can be monitored.
VII. Lao PDR Environment and Social (LEnS) Project

13. The GOL and the WB have completed negotiations of this project, which is being presented to the WB Board of Executive Directors on June 30, 2005, under streamlined procedures. This project is designed as a complementary activity to the NT2 project, capitalizing on opportunities to scale-up policy and capacity initiatives. Specifically, the project will: (i) apply the lessons learned during preparation of the NT2 project to other development projects, with special emphasis on hydropower development; (ii) address cumulative impacts of river basin development in Nam Theun/Nam Kading Basin; (iii) strengthen the legal and institutional framework for resettlement and enable its implementation; and (iv) help maintain the integrity of other protected areas in the country. Under the ADB’s Lao Environment and Social Program Loan, ADB and the WB have been working with the GOL in preparing the Decree for establishing the Environment Protection Fund (EPF) and the Resettlement Decree. Prior to LEnS project negotiations, the GOL issued the National Policy on Environmental and Social Sustainability of the Hydropower Sector, and the Decree for establishing the EPF. The National Policy aims to adapt and tailor the environment and social safeguard principles developed under the NT2 project to the hydropower sector as a whole, thus enabling procedures to be streamlined and institutionalized. The National Policy also establishes target dates for completing specific actions, which are dated covenants for this project. The ADB and the WB are collaborating with GOL in the establishment and operation of the EPF. The EPF is the implementing agency for LEnS, and the project will assist in its development to become a competent and skilled organization and thereby qualified to receive and effectively allocate NT2 revenues to environmental management activities from 2009 onwards.

VIII. Revenue Management

14. The Ministry of Finance (MoF) is setting up a Steering Committee for the Public Expenditure Management Strengthening Program (PEMSP), to be chaired by the Vice Minister of Finance, with membership including the heads of the Budget, Accounting, Treasury, Fiscal Policy, Inspection and Personnel Departments. The first meeting of the Steering Committee is planned for July 2005. The MoF is also proposing the establishment of a Coordination Committee comprising representatives of financing partners supporting implementation of PEMSP that would meet shortly after the first Steering Group meeting. MoF has further indicated that donor representatives would be invited to this meeting.

15. MOF has also suggested that a joint mission, with donor representatives and project managers responsible for project work scheduling, be undertaken in September 2005 to coordinate the activities in the PEMSP work plan for FY2006 (October 2005-October 2006). Regarding technical assistance, MOF has received applications and prepared a short list for hiring a Technical Advisor and a Capacity Building Advisor. In addition, MOF has proposed recruitment of a national program assistant to support the Steering Committee’s Secretariat. IDA has agreed that this can be funded through the ongoing IDA Financial Management Capacity Building Credit.

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A draft Resettlement Decree was prepared by the Science, Technology and Environment Agency (STEA) with assistance provided by the ADB, drawing in large part on the NT2 experience. Its enactment is a condition of effectiveness for the LEnS Project.
16. With regard to the reporting framework for NT2 revenue management, the Government is expected to start the process of selecting an appropriate Supreme Audit Institution partner soon to ensure that the Audit Peer Review is undertaken in FY2006 as foreseen under the NT2 revenue management arrangements.

17. The objectives of the Public Expenditure Review (PER) scheduled for FY2006 have been discussed with the MoF and are expected to be finalized shortly. Thereafter, this key component of public expenditure reform will be launched. The Public Expenditure Tracking Survey (PETS) is already underway. Following the completion in November/December 2004 of rapid data assessment, the survey instruments were developed and pilot-tested in May 2005. The survey is expected to take place during October-December 2005.

IX. Reporting on NT2 Implementation

18. The first joint annual report on NT2 Implementation prepared by the staff and management of the ADB and WB for their respective Boards, is planned for February 2006 and will be followed by a semi-annual update.
### Annex 1

**NT2 FINAL PROJECT FINANCING PLAN (JUNE 2005)**

<table>
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<tr>
<th>Project Financing Plan</th>
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<th>THB Million</th>
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**Total Long-Term Debt**

| Tranche A                          | 450.00      | 18,000.00   | 900.00                                        |
| Tranche B                          | 50.00       | 2,000.00    | 100.00                                        |
| Private Equity                      | 332.74      | 190.54      | 337.50                                        |
| GOL Equity**                       | 112.50      |             | 112.50                                        |
| - ADB Loan                          | 16.10       |             |                                               |
| - AFD Grant                         | 6.20        |             |                                               |
| - EIB Loan                          | 41.00       |             |                                               |
| - IDA Grant                         | 20.00       |             |                                               |
| - GOL Contribution (clause 19.1 of CA) | 29.20   |             |                                               |

**Total Equity**

| Tranche A                          | 345.24      | 190.54      | 450.00                                        |
| Tranche B                          | 100.00      |             | 100.00                                        |
| **Total Base & Contingent Financing** | 945.24 | 20,190.54  | 1,450.00                                      |

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**Abbreviations:**

- ADB: Asian Development Bank
- AFD: Agence Française de Développement
- EIB: European Investment Bank
- GOL: Government of Lao PDR
- IDA: International Development Association
- MIGA: Multilateral Investment Guarantee Agency
- NIB: Nordic Investment Bank
- THB: Thai Baht