

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

October 20, 2006

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AfD	Agence Française du Développement
ASOSAI	Asian Organization of Supreme Audit Institutions
BOL	Bank of Lao PDR
CA	Concession Agreement
CPI	Committee on Planning and Investment
DG	Development Grant
DSRP	Dam Safety Review Panel
EMU	Environmental Management Unit
GDP	Gross Domestic Product
GLIP	Government Letter of Implementation Policy
GOL	Government of Lao PDR
GOLE	Government of Lao Engineer
HCC	Head Construction Contract(or)
IAG	International Advisory Group
IDA	International Development Association
IFIs	International Financial Institutions participating in NT2
IMA	Independent Monitoring Agency
IMF	International Monetary Fund
INTOSAI	International Association of Supreme Audit Institutions
JBIC	Japan Bank of International Cooperation
LE	Lenders' Engineer
MAF	Ministry of Agriculture and Forestry
MDG	Millennium Development Goals
MDTF	Multi-Donor Trust Fund
MOF	Ministry of Finance
NGPES	National Growth and Poverty Eradication Strategy
NSEDP	National Socioeconomic Development Plan
NT2	Nam Theun 2 Hydroelectric Project
NTSEP	Nam Theun 2 Social and Environment Project
NTPC	Nam Theun 2 Power Company Limited
PDR	(Lao) People's Democratic Republic
PEMSP	Public Expenditure Management Strengthening Program
PER	Public Expenditure Review
PETS	Public Expenditure Tracking Survey
PIP	Project Implementation Plan
POE	Environmental and Social Panel of Experts
PRSO	Poverty Reduction Support Operation
RMU	Resettlement Management Unit
SAO	State Audit Organization
SOCBs	State-Owned Commercial Banks
SOE	State-Owned Enterprise
WB	World Bank
WCS	Wildlife Conservation Society
WMPA	Watershed Management and Protection Authority

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

I. INTRODUCTION AND SUMMARY

1. ***This is the semi-annual Update on the project.*** The management of the World Bank (WB) and the management of the Asian Development Bank (ADB) have agreed to keep their respective Boards informed about implementation of the Lao PDR Nam Theun 2 Hydroelectric (NT2) project¹ through joint reporting on an *annual* basis, supplemented by *semi-annual* updates. This *semi-annual* Update builds on the last *annual* Update of March 28, 2006. The next *annual* Update is planned for circulation to the respective Boards in March/April 2007.

2. ***Lao PDR has maintained relatively stable macroeconomic conditions and robust economic growth.*** The last IMF Assessment Letter (July 2006) confirmed that the medium-term economic outlook is favorable if current macro policies are sustained, which appears likely, given the importance that the present Government of Lao PDR (GOL) place on the ongoing economic reforms and poverty reduction goals. The final version of the Sixth National Socioeconomic Development Plan (NSED, 2006-2011)² is expected to be issued in late October 2006. The NSED will guide reform actions over the next five years and has benefited from consultation within the country and with the donor community. The Poverty Reduction Support Operation (PRSO) series remains on track. The Second PRSO (PRSO2) was approved by the WB's Board of Directors in April 2006 and PRSO3 is scheduled to be presented to the Board in the second quarter of 2007. Japan and the European Commission are involved in joint missions and are considering co-financing the operations. For the most part, structural reforms are moving forward satisfactorily. Public expenditure management reform has received considerable attention over the last six months, including expanded internal Government dialogue on key aspects of center-local fiscal relations and more consolidated treasury management, and development of medium-term fiscal and expenditure frameworks. The implementation of the Public Expenditure Management Strengthening Program (PEMSP) has been progressing well, following a slow start. Progress on reform of state-owned commercial banks (SOCBs) remains a concern, however, and this issue is receiving attention under the WB's PRSO3 and the ADB's Banking Sector Reform Program. The Ministry of Finance (MOF) and Bank of Lao PDR (BOL) have finalized a revised Governance Agreement with two SOCBs to further the implementation of their structural and governance reforms.

3. ***Physical implementation of the project continues to be on track and construction is now better synchronized with environmental and social mitigation measures.*** The current rainy season has not had significant impact on the construction progress, which largely remains on schedule. Now that most underground excavation works have been completed, fears of unexpected cost escalations have been reduced. Reservoir impoundment and commercial operations are likely to commence by the target dates of May 2008 and December 2009,

¹ Financing for this project was approved by the WB's Board on March 31, 2005 and by the ADB's Board on April 4, 2005.

² The Sixth Plan is the successor to the National Growth and Poverty Eradication Strategy (NGPES), which served as the country's first full poverty reduction strategy and was the culmination of a long process of formulation (begun in April 2001), which utilized a consultative process for the first time.

respectively. Nakai resettlement has gained momentum and, with the implementation of an accelerated relocation program and greater attention to environmental impacts on the Nakai Plateau, mitigation measures are keeping better pace with construction. The Downstream Program and the Wildlife Program are in early stages of preparation and implementation, respectively, and need to be carefully managed for quality and timely delivery.

4. ***Livelihood program development shows progress with respect to both implementation and compensation, but requires close monitoring.*** The rate of progress in implementation of the Nakai resettlement livelihood program, including compensation, is catching up to that of the accelerated relocation program. For other project lands,³ provisional compensation payment has been completed for the marginally-affected households and final compensation is in progress. For the seriously-affected households, provisional compensation has been paid for the crop losses during the dry season and will continue to be paid until the livelihood program is completed and livelihoods are restored. Meanwhile, the Nam Theun 2 Power Company Limited (NTPC) is finalizing the relevant resettlement action plans, incorporating comments from the International Financial Institutions (IFIs), and has initiated the livelihood development program. NTPC has received some complaints about compensation issues in some villages in the Gnommalat area. In response, NTPC and GOL are currently reviewing the payment of compensation in all these villages to identify possible grievances. Review thus far indicates that most complaints stem from misunderstanding of the entitlement policy. NTPC and the District Working Groups are also further strengthening their communication efforts with the local communities.

5. ***Capacity enhancement remains a central issue.*** NTPC has recruited expertise to strengthen its Social Environment Unit and improve general management of construction-related environmental impacts. It is also taking actions to strengthen coordination with the Head Construction Contractor (HCC) as well as with GOL and its Environmental Management Unit (EMU), and to improve supervision of the HCC. That said, further efforts are needed in these important areas to deliver adequate results. The Watershed Management and Protection Authority (WMPA) is performing well. It has completed the first round of land use and livelihood planning in nine villages; it is providing basic support for health and education services across the Watershed; and it has been steadily building up its enforcement systems and activities. While GOL has made several efforts to strengthen capacity, it still lacks an effective overarching body that can coordinate the various NT2 agencies that are responsible for meeting its obligations under the NT2 project. Lack of such a body is slowing mobilization and leading to operating inefficiencies. The Banks are engaged in an active dialogue with GOL on these issues. With regard to public financial management, GOL is seeking to establish a Multi-Donor Trust Fund (MDTF) to support reforms in this area and has initiated a Government-donor dialogue on modalities for its establishment. Meanwhile, the Ministry of Finance (MOF) is formulating a comprehensive capacity building strategy, to be ready by early 2007. Assistance from the Banks in developing a medium-term fiscal framework and a medium-term expenditure framework is ongoing.

³ Project lands include areas required for the construction of the: Power Station, Nakai Dam and Regulating Pond, Nakai Saddle Dams, Downstream Channel, Headrace Channel, Power Conduit Intake Structure, Residence Nam Theun, quarry areas, and construction work camps, as well as corridors for the 500 kV transmission line, the 115 kV transmission line, and for all roads to be upgraded or constructed, *inter alia*.

6. ***Stakeholder participation is being encouraged.*** Constructive consultations with local communities are ongoing in all project areas under the various planning and implementation activities. The project continues to attract international attention and generate debate. The Banks regularly keep the donor community in Vientiane briefed on project progress. The Round Table Process, which provides a formal opportunity for the Banks to brief participants on the progress of NT2, enjoys a high level of Government commitment; the next Round Table (planned for November 28-29, 2006) will focus on Governance and Private Sector Development. The first Annual NT2 Stakeholder Forum was successfully conducted on May 17, 2006 (with an associated site visit on May 18). The Forum provided a good opportunity for a wide range of interested stakeholders to discuss issues related to resettlement, environment, the Watershed, salvage logging, revenue management, biodiversity, wildlife, and water quality, among others. GOL and NTPC have responded constructively to various comments and suggestions offered during the Forum.

7. ***Reporting and oversight arrangements are being adjusted to respond to evolving needs and experiences gained from the first year of implementation.*** Disclosure activities are reasonably effective in disseminating information to stakeholders. Additional information is also provided through responses to periodic inquiries from civil society organizations on implementation details. The revised oversight arrangements are moving forward. The International Advisory Group (IAG) has been strengthened with the addition of three new members and the next visit of the expanded IAG will take place in February 2007. The Environmental and Social Panel of Experts (POE) visited the project site in August 2006, following up on its earlier visit in January/February 2006; its next visit is planned for January 2007. The recommendations of the IAG and POE are being well received by GOL, NTPC and the IFIs. There have been serious delays in recruitment of two of the three Independent Monitoring Agencies (IMAs) to GOL (namely the IMAs for resettlement and environment) envisaged in the Concession Agreement (CA). WB management has sent a communication, which was fully supported by ADB, to GOL/NTPC, drawing their attention to this issue. GOL has begun the selection process using Bank guidelines, and selected specialists should be contracted by December 2006 and February 2007 for the social and environmental IMAs, respectively. The WB's project supervision effectiveness has been enhanced – taking into account the experiences of the first year of implementation and advice from the IAG – and the efforts of the two Banks are in close alignment. Cooperation among the IFIs on joint supervision missions has been exemplary.

8. ***Beyond the recruitment of the IMAs, two additional areas which require immediate and heightened attention are salvage logging and biomass.*** Plans are being finalized to substantially complete salvage logging within the next two dry seasons, given that impoundment is planned for May 2008. This activity will require close supervision by GOL to ensure timely completion and to avoid untoward environmental or social impacts. Although technical assessments were undertaken during preparation, a systematic review of the various biomass clearance options, particularly in terms of their impacts on reservoir water quality, has yet to be completed. While this will not hold up salvage logging operations, it is important to complete this exercise soon and initiate clearance operations accordingly to manage environmental impacts. The Banks are engaged in an active dialogue with the Government and NTPC on these issues.

II. RECENT ECONOMIC DEVELOPMENTS

9. ***Lao PDR has maintained relatively stable macroeconomic conditions and robust economic growth.*** Monetary and fiscal discipline has improved⁴ and the momentum on structural reforms, with respect to trade, private sector and public financial management, has been sustained. Strong growth and relatively low inflation continue to reduce poverty, in both rural and urban areas, and improve social outcomes.

10. ***Growth is estimated to reach 7.5 percent in 2006 and the external position of Lao PDR has strengthened.*** After reaching 7 percent in 2005, largely due to continuing investments in mining and hydropower, an estimated 7.5 percent rate of growth for 2006 is expected to continue in 2007 as investment and exports continue to expand. Foreign investment inflows into mining and hydropower remain buoyant. Tourism export receipts continue to perform well, as do some non-traditional exports. Gold and copper exports have risen rapidly over the last two years. However, exports of garments, coffee and wood are doing less well. A surge in mining exports, combined with strong tourism receipts and foreign direct investment inflows, has helped raise external reserves to more than three months of imports.

11. ***Headline inflation fell to 7 percent in August 2006, from a high of 9 percent last year.*** Core inflation remains subdued at 5 percent. Higher world oil prices, most of which have been passed through, have raised the price level. But GOL's successful efforts in controlling the budget deficit, despite pressures on the wage-bill and slower growth in revenue, have kept inflation in check. This has generated arrears and lowered non-wage recurrent spending. A steady decline in aid inflows as a share of GDP means that faster revenue growth and more efficient public spending are imperative if delivery of basic services is to improve without undermining fiscal stability.

12. ***The present Lao Government attaches importance to poverty reduction goals and ongoing economic reforms.*** The economic management team installed after the April 2006 National Assembly elections has a strong reform orientation. Actions to open up trade and private investment continue to be taken. The state-owned enterprise (SOE) sector is borrowing less from banks and receiving lower subsidies from the Government, while the large SOEs are undergoing restructuring and tariff adjustments. But the restructuring of SOCBs is progressing much slower than envisaged. There is an urgent need to implement the revised Governance Agreements and make better use of the International Banking Advisors. More importantly, private strategic partners are needed. To improve banking services in the country, there is also a need to "level the playing field" for all state-owned and private banks. The ADB is continuing its policy dialogue on these critical issues under its Banking Sector Reform Program and the WB is engaging the Government on these issues during the ongoing preparation of PRSO3. Public expenditure management reform has gained considerable momentum over the last six months, including expanded internal Government dialogue on key aspects of center-local fiscal relations (i.e., greater central control and administration of customs and taxes); more consolidated treasury management; and increased use of budget norms to ensure that provincial decisions reflect

⁴ Following the expiry of the Poverty Reduction and Growth Facility (PRGF) in April 2005, IMF surveillance has been conducted through two missions a year, one of which results in an Article IV Consultation report and the other, an Assessment Letter.

national priorities. Assistance from the Banks on the medium-term fiscal and expenditure frameworks continues to be provided.

13. ***The last IMF Assessment Letter (July 2006) confirmed that the medium-term economic outlook is favorable if current macro policies are sustained.*** The medium-term outlook is one of robust growth and poverty reduction, provided progress is made in structural reforms, and public borrowing for large projects does not jeopardize debt sustainability. The assessment flagged the following risks on the revenue side: mining royalties not remitted by provinces to the central budget; slackening of non-resource tax administration; and greater central control over customs and taxes not restored. The revenue side is especially critical, as total aid flows as a share of GDP have been declining steadily, thereby restraining improvements in delivery of basic services.

14. ***The final version of the Sixth Plan (NSED) is expected to be issued in late October 2006.*** The NSED will guide reform actions over the next five years (2006-2011). Its preparation followed an extensive consultative and participatory process, and donors provided formal comments on a draft version in January 2006. The draft Sixth Plan, discussed at the Party Congress and National Assembly in April and June 2006, respectively, appropriately emphasized the objectives of poverty reduction and attainment of the Millennium Development Goals (MDGs), and indicated the policy and public investment measures necessary to achieve them. In order to strengthen the links between the objectives and proposed public expenditure programs, the Committee on Planning and Investment (CPI) conducted a series of workshops with sector ministries and donors on the expenditure interventions submitted by ministries in four major sectors – agriculture, transport, health, and education – to develop consensus on the five-year sector allocations, as well as expenditure priorities within these sectors. The broad directions and goals for reforms in private sector, trade, banking, state-enterprises and public financial management are also laid out in the draft Plan. Gaps in the draft version of the Plan that still need to be addressed include identifying the priority sub-sector public expenditure programs for poverty reduction and related priority sector policies. The Government has indicated that these gaps will be addressed in the forthcoming final version of the Plan.

15. ***The PRSO series remains on track, supported by the WB.*** The Second PRSO (PRSO2) was approved by the WB's Board of Directors in April 2006. GOL remains committed to structural reforms, as is evidenced by the work on the next operation (PRSO3) in the series. The PRSO3 is scheduled to be presented to the WB's Board in the second quarter of calendar year 2007. The donor community has expressed interest in co-financing the PRSO series, with Japan (JBIC) considering co-financing PRSO2, and planning to join PRSO3, and the European Commission planning to start financing from the second quarter of 2007.

16. ***Public expenditure management reform has received considerable attention over the past six months.*** The joint Government-donor Public Expenditure Review (PER) and the Public Expenditure Tracking Survey (PETS) exercises continue; it is expected that the PER will be completed by November 2006, and the PETS by February 2007. Findings of these reports will inform the implementation and subsequent update of the PEMSP.

17. ***The implementation of the PEMSP has been progressing well, following a slow start.*** The Government has put in place credible implementation arrangements and engaged long-term

advisory services for effective execution of the PEMSP. In order to ensure national buy-in, and to incorporate views of provincial stakeholders in the update of the PEMSP, GOL has conducted three national consultative workshops. Stakeholders participating in these workshops provided significant inputs to the update of the PEMSP. This update is currently being managed by the Fiscal Policy Department, and it is expected that the PEMSP program document, with a revised implementation schedule, will be finalized by November 2006. Some of the critical activities that have occurred since the last update are: (i) the update of the Chart of Accounts and the budget nomenclature continued, and it is expected that the revised Chart of Accounts will be approved by the beginning of 2007; (ii) the proposal for stabilization of the Government Financial Information System was finalized and the contract bid out internationally; (iii) long-term capacity building advisory services were engaged, and an English language training program for staff of the MOF commenced; (iv) the revised Budget Law has been prepared and is currently undergoing national consultations, and it is expected that this Law will be tabled in the National Assembly during this calendar year; and (v) there was progress on the development of the Medium-Term Fiscal Framework and the Medium Term Expenditure Framework.

18. ***In June 2006 the Government constituted an MOF inter-departmental committee to coordinate all public finance management issues relating to the NT2 Revenue Management Arrangements.*** This committee, led by the Director General for the Fiscal Policy Department, is a welcome development. Progress in implementation of the PEMSP to date has been adequate to meet critical requirements of the NT2 Revenue Management Arrangements, as described in the technical annex to the Government Letter of Implementation Policy (GLIP). Nevertheless, sector ministries will need to make concerted efforts in the next two years to finalize their priority sub-sector spending requirements that will be met through the use of NT2 revenues from fiscal year 2010.

19. ***MOF has begun preparation of a comprehensive capacity building strategy.*** It is expected that this strategy will be ready for implementation by early 2007. Implementation will require significant coordinated donor support. In this regard, the Government wishes to establish an MDTF to support public finance management reforms. This MDTF arrangement will bring together donors assisting the Government in this area. Over the next six months, there will be Government-donor dialogue on modalities for establishing such a fund. The Government and donors also are discussing establishment of a working group on public finance management.

20. ***Strengthening audit performance is an important part of the public financial management agenda.*** A peer review of the State Audit Organization (SAO) by a member of the International Association of Supreme Audit Institutions (INTOSAI) has been delayed and is now expected to be completed in early calendar 2007. The ADB's technical assistance for strengthening the SAO continues to provide training workshops, which include conduct of financial audits; audits of foreign-aided loan projects, SOEs, and the Government's financial statements; and English language training. Also with assistance from ADB, a legislation conference attended by Vietnam's State Audit Authority, the SAO and various other Government stakeholders was held March 1-7, 2006 in Vientiane. This proved particularly useful to the SAO as it prepares a draft Audit Law for National Assembly consideration in late 2006. ADB also sponsored SAO's first-ever attendance as a participant in the Asian Organization of Supreme Audit Institutions (ASOSAI) Assembly in September 2006.

III. NT2 IMPLEMENTATION

21. ***The physical implementation of the project continues to be on track.*** Following the river diversion in early March 2006, construction on the cofferdams was completed and main dam abutments are being concreted. The headrace channel and tunnel, the power house and the downstream water works, including the regulating dam and pond and downstream channel, are all under construction. Overall construction quality remains good. While there is a slight delay in some of the construction activities, NTPC maintains contact with the HCC to adjust the construction schedule so that momentum does not falter. Fears of unexpected cost escalations have significantly decreased, especially now that most underground excavation works have been completed. By mid-July 2006, the site work force numbered about 6,570 (80 percent being Lao nationals), and this number is anticipated to increase to about 10,000 by end-2006 to meet the required activity level during the coming dry season. Construction is now better synchronized with environmental and social mitigation measures, thanks to the implementation of an accelerated relocation program and greater attention to environmental impacts. This augurs well for completing construction within cost and for beginning reservoir impoundment by the target date of May 2008, with commencement of commercial operations in December 2009.

22. ***Construction progress has fortunately not been affected by the recent rainy season.*** Although the wet season started two to three weeks late, with flows in the Nam Theun at their lowest since records began, heavy rainfall in July triggered the advanced planning for stoppages in areas known to be affected by and susceptible to severe rainy conditions (e.g., dam site). Construction activities at these locations have largely remained suspended despite comparatively less rainfall during August. Dry season re-mobilization has now commenced, enabling the project to make up for the modest delays it has experienced so far.

23. ***The management of construction-related environmental impacts has been strengthened, but results are not yet fully evident.*** NTPC's management of environmental construction impacts remains a challenge, as does coordination among NTPC, HCC and GOL/EMU, and improved supervision of the HCC. These issues are now receiving NTPC's attention at a high level as it continues to strengthen its environmental management team. A new head of the Environmental Office, who has considerable experience in engineering and environmental management, is now on board. In response to long-standing concerns over erosion and sedimentation, several measures are being introduced by the HCC. The Lenders' Engineer (LE) reports that the use of flocculants in selected sedimentation basins discharging into the Nam Kathang has had excellent results, and NPTC is currently assessing expansion of this approach to other construction sites. Trials of re-vegetation techniques (sodding, direct seeding, and hydroseeding) have been ongoing throughout the current wet season. NTPC has recruited a specialist in the field to help the HCC implement the lessons from these trials to strengthen re-vegetation and erosion control measures. Resettlement sites have tended to be completely cleared of vegetation due to resettlers' preferences for "clean" areas and for replacement of original trees with fruit trees, but NTPC is strengthening environmental site planning for resettlement construction. A waste management facility is now in operation, serving all camps and construction areas and sorting the waste to collect recyclable materials, and waste oil from the project is now being utilized by a paper mill as fuel for the mill's boilers. To address road dust generation, which has been exacerbated by construction activities (particularly in the dry season), the frequency of watering was increased during the dry season. Also, GOL and NTPC have

agreed to pave Road 12 from Thakhek to the Road 8b/12 intersection, and this will be completed in 2007. To reduce health impacts on the local community on the Plateau due to road dust, discussion on possible paving of Road 8b (at least in community areas) will continue.

24. ***Issues with the implementation of drainage, erosion and re-vegetation measures along the dam site access road are being addressed.*** Although designed and executed to national specifications in agreement with GOL, the construction of the permanent access road to the dam site (planned through a biodiversity corridor) was considered by the POE to have resulted in excessive forest clearance due to inappropriate design and poor choice of alignment. Following IFI and POE discussions with NTPC, the road was realigned to reduce the impact. However, much of the clearance for the original alignment had already taken place. The POE advised that proper drainage on the unprotected slopes now needs to be put in place and re-vegetation accelerated in order to avoid erosion into the Nam Theun River. NTPC's erosion control and re-vegetation specialist has been developing a specific plan for this road, including reforestation of certain areas. Vegetation clearance along the realigned Road 8B, where it skirts the future reservoir area on the Nakai Plateau and crosses the Nam Theun River, is also an issue. In this regard, NTPC has reviewed with contractors their design and construction practices to reduce the amount of vegetation that needs to be cleared. NTPC is also carrying out an additional environmental review of the design for the new road section across the reservoir before allowing construction to proceed. On behalf of the IFIs, ADB intends to field a road engineer to assess the agreements that have been reached between NTPC and the contractors on revisions to the design of these roads.

25. ***Synchronization of construction activities with progress on resettlement is improving.*** Early in implementation, the Nakai resettlement program experienced delays, which led to concerns over the synchronization of resettlement activities with civil works, particularly given the potential for backwater flooding impacts resulting from construction and closure of the cofferdam in mid-2006. With acceleration of the relocation program (focused on "Group I" villages), synchronization has improved; delays are being reduced and the potential impacts associated with the cofferdam closure have been addressed. However, plans for relocation of the two plateau villages which fall within Khemkeut district (Sop Hia and Nam Nian) are still uncertain. Part of their population was to move to the Nampan site in Khemkeut District, down the Plateau. This resettlement site was dropped due to water pollution problems (unrelated to the NT2 project). However, some 26 households insist on staying within Khemkeut. Further site explorations in Khemkeut District, as well as discussions regarding the possibility of staying on the Plateau, are still ongoing. Meanwhile, new village site design and preparation has already started for the remaining ("Group II") villages. It is expected that their relocation will be completed before June 2007.

26. ***Nakai resettlement continues to make good progress.*** Nearly 600 households from eight villages have already moved into their resettlement sites under an accelerated relocation program, which was designed in part to respond to the potential for backwater flooding impacts following completion of the cofferdams.⁵ Under this program, families have voluntarily moved

⁵ When the flows in the Nam Theun River exceed the diversion tunnel discharge capacity (normally between June and October, but this can also occur in May and November), the excess river flows pass over the completed cofferdams and the partially-completed dam - which together act as a restriction to the natural flow of the river -

to temporary housing on their new plots located along the rim of the future reservoir to benefit from improved living conditions with assistance from NTPC. This phased resettlement arrangement facilitates transition from the old villages to the new resettlement areas, and encourages early involvement of villagers in the preparation of their new houses and land parcels. Field visits indicate that the accelerated relocation program has benefited the relocating families and helped greatly with food security, particularly after the rainy season. Detailed village livelihood planning is in progress, with activities including land resources mapping and livelihood potential analysis and consultations, but these activities need to catch up with the accelerated resettlement activity. Also at present, these activities are limited to only the first group of relocated villages and progress varies among them. Full development of sustainable livelihood programs remains the biggest challenge, but NTPC has mobilized key expertise, particularly on agricultural development, and the targets remain achievable. Based on the discussions with the recent IFI technical mission, NTPC will address the following issues to strengthen the livelihood program: (i) restrictions of large livestock on the Plateau to sustainable numbers; (ii) exploration of the potential for recession rice agriculture in the drawdown zone; and (iii) targeted capacity building to strengthen community management of forestry and fishery resources. Shortfall in timber for resettlement housing is receiving GOL attention, and different options are being reviewed which will be assessed during the November 2006 IFI supervision mission. The resettler health program is making good progress. District health centers have been established and strengthened and additional health officers recruited. These officers regularly visit the relocated villages and carry out check-ups; the visits have not revealed any epidemics or worrisome public health trends that often accompany large-scale physical relocation. A recent health survey in the pilot village shows remarkable improvement in public health status among the resettler population of that village. The project health team also is closely monitoring the health status of the relocated villages.

27. *Regarding other project lands, progress is being made on livelihood program development, but timely implementation remains a challenge.* Most of the project land acquisitions were completed a year ago; some parcels for project roads and particularly transmission lines remain to be acquired. Provisional compensation is being paid to 579 land owners' households for crop losses, 390 of which are seriously affected (loss of 10 percent or more of income) and receive livelihood restoration. The remainder will receive final cash compensation, which has commenced in some areas, with progress varying for different land parcels. Meanwhile, NTPC is finalizing relevant resettlement action plans, incorporating IFI comments, and has already initiated livelihood development programs, particularly in the Gnommalat area where major land acquisitions (relating to the downstream channel) have taken place. The challenges in Gnommalat are the timely completion of the detailed plans and rapid implementation of livelihood activities for the seriously-affected households. NTPC has received some complaints about compensation issues in some villages in the Gnommalat area. In response, NTPC and GOL are currently reviewing the payment of compensation in all these villages to identify possible grievances. Review thus far indicates that most complaints result from misunderstanding of the entitlement policy. The complaints revealed a need to strengthen internal monitoring procedures, given that NTPC did not have all the information immediately at hand, as well as communications with the local people. The District Resettlement Working

raising the water level of the river and creating the potential for backwater flooding impacts to villages along the portion of the river upstream of the dam site.

Groups who make the assessments and provide compensation on the ground are being strengthened with additional Makhong-speaking staff.

28. ***NTPC has made further efforts to strengthen its Environment and Social Unit.*** It has recruited a Social Environment Advisor, a Resettlement Advisor, a Gender Advisor, and an Ethnic Minority Advisor to work on the Nakai resettlement program and the internal monitoring of its environmental and social programs. In addition, it has recruited expertise to strengthen various technical design teams. This strengthened capacity will be increasingly important as the full resettlement program unfolds and gradually scales up.

29. ***After a slow start, the Wildlife Program is moving forward.*** Phase I of the elephant component has been completed, except for the analysis of genetic material. NTPC is in contract negotiations with the Wildlife Conservation Society (WCS) regarding Phase II, but an arrangement is in place to allow fieldwork to continue in the interim. Phase II will start with the preparation of the Elephant Management Plan. The most urgent action on other Program components is to initiate work on baseline surveys and a management plan for other wildlife on the plateau. A consultant team (top field biologists with experience in Lao PDR) has been selected for this task and an initial field visit has already taken place.

30. ***The WMPA has made good progress since its establishment.*** It is an active organization that is demonstrating its ability to carry out quality fieldwork in cooperation with villagers and local government agencies. The WMPA has completed the first round of land use and livelihood planning in nine villages; it is providing basic support for health and education services across the Watershed; and it has been steadily building up its enforcement systems and activities. The IMA for the WMPA has made two visits for the 2005/2006 work cycle, and its findings have been generally positive. The POE has also commended WMPA performance. Many challenges remain, however, to overcome internal issues of coordination, administration and reporting, and to develop the capacity and authority to fully implement the very challenging objectives. The WMPA's first annual report and 2006/2007 Work Plan will be issued shortly, after review by its Board of Directors.

31. ***The Downstream Program is under development, and pilot activities have commenced in 21 villages.*** NTPC's consultant team is finalizing the livelihood restoration program planning based on its work in the pilot villages. A draft report has been reviewed by the IFIs, and the consultant is now incorporating IFI comments in the final report. Program implementation has already started in the 21 pilot villages. Based on experiences from other Bank-funded projects, the downstream livelihoods program is not providing grants to the beneficiaries. Instead, villages have started testing the use of revolving funds to provide micro-credits for different types of income generating activities (e.g., horticulture including vegetables and fruits, aquaculture, irrigated rice, animal husbandry, and cottage industries) determined by focus groups held among villagers. NTPC has recruited a financial specialist to further elaborate the micro-financing arrangements prior to scale-up. It is also initiating the process of hiring staff to scale up the existing pilot activities. Fisheries monitoring has been conducted in most of the Downstream areas since January 2006, and the data is currently being collated. In addition, aquatic biodiversity surveys took place in May 2006 under the Wildlife Program to update pre-project information.

32. ***Salvage logging modalities are being finalized.*** Difficulties in identifying a logging contractor willing to pay royalties up-front prevented the start of logging during the 2005-2006 dry season. This led to a change in contractual arrangements. The Ministry of Agriculture and Forestry (MAF) has now contracted a local company to cut the timber and deliver it to a second location for bidding. The contractor is mobilizing, area demarcation is ongoing, and operations will commence this dry season (November 2006-April 2007). This will leave two full dry seasons to complete salvage logging operations, and MAF considers this sufficient to harvest most of the commercial timber, with any remaining logging to be completed after inundation, when the timber becomes accessible due to drawdown of the reservoir during the dry season. Construction of the salvage logging access road will be completed at the start of the dry season, in parallel with the start of logging. Progress on finalizing plans for monitoring and management of the logging operations has been slower than expected, due to the departure of the previous coordinator. The MAF has now appointed a new coordinator, and is working intensively to complete the necessary arrangements. In addition, GOL and NTPC have agreed to engage, by end-October 2006, an independent environmental agency to monitor salvage logging.

33. ***Consideration of reservoir biomass clearance options is still in progress.*** As part of the development of the Environmental Assessment and Management Plan, technical assessments of biomass clearance requirements and water quality impacts were undertaken. Review of options for biomass clearance, particularly in terms of their impacts on reservoir water quality and the reservoir fishery, which is one pillar of the livelihood program for Nakai resettlers, has yet to be completed. NTPC has designed mitigation measures to avoid potential impacts on the reservoir water quality based on a worst-case scenario simulation of water quality and biomass, and is engaging a consultant to review the need for biomass clearance. While this will not hold up salvage logging operations, it is important to complete this exercise soon and initiate clearance operations accordingly to manage environmental impacts. The Banks continue to be engaged in an active dialogue with GOL and NTPC on this issue.

IV. CONSULTATIONS AND STAKEHOLDER PARTICIPATION

34. ***Consultations with local communities continue in all project areas under the various planning and implementation activities.*** Consultations in all the project areas have evolved to become sustained day-to-day engagements between villagers and project staff in the different planning and implementation activities. Villagers' awareness of compensation rights and grievance procedures is rising, and so is confidence in resolving problems, jointly with NTPC and GOL staff, as they arise. The WB has commissioned an independent assessment of the follow-up to the independently-facilitated local consultations process initiated during project preparation in 2004. The consultant – who had monitored the earlier consultations to evaluate the openness, balance, and meaningfulness of the process – is undertaking this assessment and is expected to complete the work at the end of the year.

35. ***GOL capacity building still needs attention.*** While GOL has made several efforts to strengthen capacity to carry out its obligations under the NT2 project, the overall impact of these efforts remains limited. GOL appointed a new Resettlement Management Unit (RMU) manager in May 2006, but it is too soon for improvements to be fully evident. Also, the MAF has seconded a senior forestry staff member to work on the operation of the Nakai Village Forestry

Association and has also nominated a point person to lead its management of the salvage logging operations. However, as the POE pointed out during its last visit in August 2006, GOL lacks an effectively functioning overarching body that can coordinate the various NT2 agencies that are responsible for meeting its obligations under the NT2 project. This is slowing mobilization and leading to operating inefficiencies. In response to POE suggestions, GOL is reactivating the NT2 Steering Committee under the chairmanship of the officiating Deputy Prime Minister, who has already undertaken two visits to the project site since September. The IFIs are continuing their interaction with GOL on further strengthening of the secretariat to the Steering Committee.

36. ***The project continues to attract international attention and provoke debate.*** The project area has been visited by media, students, scholars, civil society, parliamentarians, donor agencies and other stakeholder groups. GOL and NTPC have facilitated these visits nearly on a weekly basis since the project commenced, and allowed unhindered access to different project sites. GOL, NTPC and IFIs have been proactively sharing information with the public through a number of modalities (including regular media releases and responses to queries from the media and civil society) and agree that building public understanding of implementation issues is an ongoing process. While they have respectively continued to disclose relevant project information, more proactive outreach is needed to raise awareness of sources of information such as the public information centers in Vientiane and Thakhek. GOL also has expressed an interest in communications training or “skills building” for its staff, in order to build on the transparency achieved to date, and has sought assistance for this. The Agence Française du Développement (Afd) is reviewing proposed Terms of Reference in this regard.

37. ***The First Annual Stakeholder Forum took place on May 17, 2006.*** Over 200 people gathered in Thakhek for this Forum (a one-day workshop open to all interested stakeholders) to discuss implementation accomplishments to date and challenges looking forward. The Forum was followed by a visit to the project site on May 18 by over 100 persons from government, development agencies, media, and civil society. It was hosted by GOL in coordination with NTPC and the IFI partners. The workshop provided a good opportunity for a wide range of stakeholders to discuss issues related to resettlement, environment, the Watershed, salvage logging, revenue management, biodiversity, wildlife, and water quality, among others. An “open week” followed the workshop, to which anyone interested in viewing progress on implementation was invited. GOL and NTPC will continue to hold the Annual Forum as well as annual open visits to the site.

38. ***The Round Table Process continues to enjoy a high level of Government commitment.*** The Government is currently working with key donors, including the WB, to prepare a Lao PDR action plan in response to the Paris Declaration. As a prelude, a Lao Joint Statement on Aid Effectiveness will be presented at the next Round Table, which is scheduled for November 28-29, 2006, with Governance and Private Sector Development as the main themes. The final version of the NSEDP will also be presented at the meeting. The periodic Round Tables provide the Banks a formal opportunity to brief participants on the progress of the NT2 project.

V. REPORTING AND OVERSIGHT

39. ***Reporting and disclosure arrangements are in place.*** Periodic reports on progress, from a number of perspectives, are available to the public, mainly through the websites of NTPC or GOL. In addition, the WB website provides information on the IAG, which is expected to have its own website in place in the near future. These reports include: (i) semi-annual NT2 project progress reports issued by NTPC; (ii) GOL semi-annual reports/presentations on watershed management and revenue management; (iii) reports of the independent expert panels – the POE and IAG – following each of their respective visits; and (iv) reports of GOL IMAs, as they become available. Additional documents delineating implementation plans and activities will be disclosed as they are finalized, including the revised Project Implementation Plan (PIP),⁶ which will include more information on the Downstream Program.

40. ***There is continued public interest in disclosure of other technical documents.*** These include the Salvage Logging Plan, Community Forestry Plan, and Detailed Resettlement Village Plans. The Salvage Logging Plan is being finalized to consolidate the content of earlier documents. The Banks continue to urge NTPC and GOL to release appropriate details of Resettlement Program activities, but there is legitimate concern about releasing documents that contain household-level information. A number of additional reports are issued for the internal use of the lenders and the implementing and monitoring agencies, including those of the following entities: (i) the LE, which has been providing quarterly progress reports (covering all aspects of project implementation) since July 2005, following each of its visits; (ii) GOL Engineer (GOLE), which has also issued progress reports after each of its quarterly visits; and (iii) NTPC, which issues monthly progress reports. The monthly reports and some technical reports are not disclosed, since these are detailed operational documents written for the purpose of guiding the work of a large number of technical staff and managers working on the project, and subject to frequent revisions in response to evolving circumstances. Beyond formal reporting, additional information is exchanged through periodic correspondence. For example, inquiries are received by NTPC and the Banks from civil society organizations seeking detailed information on implementation, and the receiving entity generally responds appropriately.

41. ***Further strengthening of supervision of the HCC is needed.*** Both the POE and LE have found aspects of NTPC and GOL control of construction impacts to be inadequate. Greater attention to impacts and necessary mitigation measures is needed, particularly with regard to the environment. NTPC and the HCC have agreed to a regular monitoring mechanism to address this issue. GOL's EMU does not yet have the necessary capacity to carry out its monitoring functions, but a technical assistance program is in place to address this.

42. ***The streamlined oversight arrangements are being implemented.*** These arrangements involving the IAG, POE, LE, Dam Safety Review Panel (DSRP), GOLE, IMAs, and the formal IFI supervision management missions have been described in detail in the annual Update to the Board (March 28, 2006). Modifications were introduced based on experience gained during the first year of implementation and advice received from the IAG. NTPC and GOL have continued to respond constructively to the findings and recommendations of the oversight groups. Some further alignment of the IFI and LE missions will be sought.

⁶ The initial version of the PIP has already been disclosed and is available on NTPC's public website.

43. ***The IAG has been strengthened with the addition of three new members.*** The independent IAG will now consist of five persons. One is replacing a former member who joined the NT2 POE and the others will fill the positions for revenue management and community development/public participation. The new members appointed by the WB President are: (i) Mr. Jacques Gérin; (ii) Mr. Rob Laking; and (iii) Ms. Mary Racelis. They will join Mr. Dick de Zeeuw, who will continue to serve as the Convenor; and Mr. Emil Salim. All five of the IAG members have extensive knowledge of conditions in developing countries, experience with large scale investments in infrastructure, and international stature. During the implementation phase of the project, the specific responsibilities of the IAG will be to: (i) identify potential issues and problems, as they arise, concerning: environmental management and social impacts of the project, civil society participation in project implementation, progress in building institutional capacity within relevant Government agencies, management of revenues originating from the sales of electricity generated by the project, and other issues of governance; and (ii) recommend to the WB practical and cost-effective actions that it needs to undertake and/or take-up with the Government and NTPC to address the problems identified. The IAG will focus on issues concerning capacity building and institutional strengthening, given their importance to the success of the project. The IAG will also review the scope and quality of WB supervision of the project. The IAG has visited the project twice since full-scale implementation was started – once in August 2005 when one member of the IAG participated in a joint mission with the POE and a full visit in January/February 2006. The expanded IAG is expected to visit the project in February 2007.

44. ***The POE visited the project site in August 2006.*** The second visit this year was to follow up on the comprehensive recommendations made during the January/February 2006 visit, particularly as they related to resettlement. The tenth report of the POE is expected to be made public shortly and the actions taken on its recommendations will be described in the next NT2 annual Update to the Boards. Based on the oral debriefing at the end of its visit, and a preliminary draft of the POE report provided to the Banks, the POE's main messages relate to improving management of environmental impacts around construction sites, ensuring that livelihood activities do not lag behind physical resettlement activities, which have gained momentum, and continuing to address downstream issues on a timely basis. The POE is also likely to highlight the need for early decisions on time-bound issues relating to salvage logging and biomass clearance and the importance of ensuring that the project's macroeconomic impacts are closely monitored by Government with World Bank support. The POE is expected to flag certain institutional areas that require the close attention of both GOL and NTPC, including the need for: (i) an overarching GOL coordinating body, especially after the recent government changes; (ii) more effective management by NTPC of the HCC and sub-contractors to ensure that the agreed construction-related environmental mitigation measures are properly implemented; (iii) development of the necessary institutional capacity to better coordinate programs relating to reservoir, downstream and project lands as a matter of urgency; (iv) further strengthening of broader Lao PDR systems of environmental monitoring and related statutory controls; and (v) GOL IMAs to be put in place and made operational as a matter of highest priority.

45. ***There have been serious delays in the recruitment of two of the three IMAs.*** In addition to the other three monitoring entities - POE, IAG and LE - the CA and the IDA Development Grant (DG) for the Nam Theun 2 Social and Environment Project (NTSEP, see paragraph 47

below) also required the establishment of three IMAs (for WMPA, RMU and EMU,⁷ respectively). Of the three, the IMA for the WMPA is in place, and undertook its first assessment in May 2006. The other two IMAs have yet to be established. WB management has sent a communication, which was fully supported by ADB, to GOL/NTPC drawing their attention to this issue. While the LE (quarterly, for the lenders), GOLE (quarterly, for GOL), and POE (semi-annually, for GOL) are monitoring construction-related social and environmental impacts, further delay in the appointment of the two IMAs will adversely affect the quality (or rigor) of the overall monitoring effort. GOL has begun the selection process using Bank guidelines, and selected specialists should be contracted by December 2006 and February 2007 for the social and environmental IMAs, respectively.

46. ***The ADB management and supervision arrangement has been effective.*** The ADB project implementation team consists of staff from the South Asia Regional Department, the Private Sector Operations Department, and others, who report to the Director of the South East Asia Infrastructure Division, working in consultation with the Country Director in Vientiane. Two senior specialists, one for infrastructure and overall project management issues, and the other for social safeguard activities, have been deployed to Vientiane and Bangkok respectively to increase the intensity of ADB's supervision activities. The team reports regularly to ADB's senior management and Board. The ADB sovereign (public sector) loan for US\$20 million has been fully disbursed. By the end of September 2006, a total of US\$21.23 million (i.e., 42 percent of the US\$50 million available) of ADB's non-sovereign (private sector) loan to NTPC had also been disbursed. An update by ADB on the implementation progress of the Theun Hinboun Hydropower Project is provided in Annex 1 of this Update report.

47. ***The World Bank has enhanced the effectiveness of its supervision, monitoring and communication efforts.*** The large, cross-sectoral NT2 team, operating out of different locations, is now jointly led by two Project Coordinators – the Country Manager in Vientiane, and the Lead Energy Specialist in Washington, D.C. Together, they are responsible and accountable for effective supervision of the entire NT2 project. They report to the Bangkok-based Country Director and seek technical guidance from the relevant Sector Managers and Directors. Procurement under the IDA DG for NTSEP has now gained momentum. As of the end of September 2006, of the US\$20 million DG, US\$8.9 million equivalent (i.e., 45 percent) had been disbursed. The supervision efforts of the two Banks are now in close alignment and cooperation among the IFIs on joint supervision missions has been exemplary. Annual management and bi-annual supervision missions by the IFIs have been mounted with full cooperation from NTPC and Government. The next NT2 IFI supervision mission is planned for November 2006. Day-to-day interactions between NTPC, GOL and the locally-based IFI teams have sought to balance timely identification and response to issues as they emerge with avoidance of an overbearing presence and interference with construction activities.

⁷ The IMA for the RMU will operate on two streams: one for plateau resettlement and the other for the downstream area and other project lands. Regarding the IMA for the EMU, there is a need to resolve overlaps between the functions of an IMA and the EMU, and this problem is currently being addressed.

UPDATE FROM ADB ON THE THEUN-HINBOUN HYDROPOWER PROJECT¹**Background**

1. A public-private partnership, the Theun-Hinboun Power Company (THPC) Limited, was formed in 1993 to plan, finance, construct, own, and operate the Theun-Hinboun Hydropower Project (the Project) downstream of Nam Theun 2. It started operations on schedule in March 1998. The Project is a trans-basin hydropower scheme diverting the Nam Theun by means of a dam consisting of a combination of radial and flap gates and a weir. The flow is diverted through an underground tunnel to a 210-megawatt surface powerhouse and is discharged to the Nam Hai, a tributary of the Nam Hinboun. An 86-kilometer transmission line to the border at Thakhek allows the export of power to the Electricity Generating Authority of Thailand (EGAT).
2. The Asian Development Bank (ADB) approved a loan of US\$60 million from the Asian Development Fund (ADF) for the Lao People's Democratic Republic (Lao PDR) to implement the first joint-venture hydropower project with foreign investors. Electricité du Laos (EdL), the state-owned power utility, contributed 60 percent of the share capital, and two foreign investors, MDX Lao Public Company Limited and Nordic Hydropower AB, 20 percent each. Assisting the transition to a market economy by supporting such private sector participation, ADB acted as the lead coordination agency for the Government's negotiations with the foreign investors and provided legal and financial advice in the form of a technical assistance grant. As a result of significant cost savings in main civil works, mechanical works, and electrical equipment, the Project was completed at a cost of US\$240 million, 11 percent below the appraisal estimate of US\$270 million.
3. THPC and EGAT signed a power purchase agreement (PPA) in 1996 for a guaranteed off take of 95 percent of THPC's power generation, which has ranged between 1,358 and 1,521 gigawatt-hours (GWh) per annum in the last five years; sales to EGAT were about 97 percent of declared availability. It is expected that the power plant will generate on average 275 GWh per annum less when Nam Theun 2 starts impounding its reservoir in May 2008. The PPA between THPC and EGAT is based on the take-or-pay principle, has a term of 25 years from the start of commercial operation, and contains an option for renegotiating the tariff after 10 years. The tariff in the first year of operation was \$0.0484 per kilowatt-hour, and increased by a fixed rate of 1% per annum after 1999. The payment is determined half in US dollars and half in Baht at a fixed exchange rate of US\$1.00 = B25.35. THPC later refinanced its commercial loans aligning the currency profiles of the debt payments with those of the revenues.
4. The Project has achieved its intended purpose. It is currently one of the largest foreign exchange sources in the Lao PDR. THPC's sales revenues increased from US\$42 million in 1998 to a high US\$57 million in 2005, and are expected to be maintained at about US\$55 million in the future. THPC's financial performance is very good. THPC has a healthy profit and maintains a comfortable debt-servicing capacity. The Project generated a net income of US\$88 million from 2003 to 2005. THPC's dividend payments in the same period amounted to US\$78 million,

¹ New developments on the Theun-Hinboun project since March 2006 are documented in this Annex, particularly in paragraphs 6 and 10.

of which US\$47 million went to EdL. In addition THPC paid about US\$2.8 million in royalties to the Government in 2005. In 2004 THPC started paying taxes. The profit tax payment for 2004 was about US\$3.4 million and about US\$2.9 million for 2005. Revenue sharing arrangements among the shareholders of THPC is as per the joint venture agreement, i.e. 60 percent for EdL on behalf of the GOL and remaining 40 percent equally shared between the Thai and Nordic investors.

5. The feasibility study included an environmental impact assessment that was completed in May 1993, but due to the lack of baseline data on environmental and social impacts, the extent of these impacts was not properly understood; this resulted in some design weaknesses. The Project was funded and constructed before ADB had fully developed its policies on environmental and social issues, and the lack of baseline information was dealt with by postponing the study of impacts to post-construction period. Physical relocation of persons was not anticipated, as the communities living in the project area mostly consisted of shifting cultivators. Therefore, the Project did not have a resettlement plan to systematically address income restoration and other social impacts. However, the EIA did propose several community programs in the project area. During implementation and initial operation, it became apparent that the environmental and social impacts were more extensive than anticipated and various parties, including international non-government organizations, raised their concerns such as: (i) the number of villages affected by the Project increased from 21 to 57; (ii) loss of dry season riverbank gardens, which were an important source of food and income; (iii) loss of access to traditional fishing and fish breeding areas, which are an important protein source for villagers; (iv) erosion along sections of the Nam Hinboun, which caused loss of land and access to clean water supplies; and (v) loss of income by villagers due to delays by the company in taking action to solve the problems caused by the project.

Agreed action plan to mitigate social and environmental impacts

6. To remedy the environmental and social problems, a 10-year mitigation and compensation program (MCP) was agreed upon in June 2000, and a new Environmental Management Division (EMD) was formed within THPC in 2001 to implement it. The MCP is comprehensive and ambitious, and tries to adopt best practices in terms of participation. The EMD addresses the issues raised in the MCP, which provided that approximately 3,000 families in 57 villages had been impacted by the Project. One of the first actions by EMD was the development of a management strategy in the form of a logical framework (Logframe) to implement activities to mitigate identified project impacts. A significant number of Logframe activities have been initiated and are showing relatively good progress. THPC reports quarterly on the implementation of the Logframe on the following activities which are considered most critical:

- **Community assessment and organization.** Village development committees (VDCs) have been established and trained in 49 villages (one more than in the previous update) and sample socioeconomic baseline surveys are being carried out as per the targets in the logical framework, adopting a livelihood framework to monitor and assess the impact. The process is on-going for the remaining 8 villages. To date all villages have been visited and VDCs and/or village working groups are being established to follow through with the assessment work.

- **Social mitigation implementation.** Savings and credit programmes have been established in 57 villages. Twenty-seven livestock groups have also been established. No change since previous update.
- **Water supply.** A total of 150 dug and tube wells (44 more than in the previous update) have been completed as well as four gravity fed systems and several water pumps for domestic use and gardens, and culverts.
- **Health and sanitation.** Village health volunteers have been trained, and basic medicine kits, mosquito nets, and revolving medicine funds have been provided in 47 villages (up 20). The process is also on-going for the remaining 10 villages. VDCs and/or village working groups are following up on this work.
- **Wild fishpond building.** Six large wild fishponds with good fish yield following the wet season were built at Hinboun area (new since last update).
- **Savings and credit funds.** In 57 villages (from 56), 3,056 accounts (43 more than in the previous update) are operating with a total Kip value of 2,602 billion (from 2,200 billion) of which 1,436 billion (from 400 billion) has been lent to group members.
- **Gardens.** House gardens have been established in 50 villages (42 more than in the last update) with participatory land use planning, terracing where appropriate, and planting fruit trees and vegetables.
- **Other activities.** Other livelihood enhancement activities carried out in several villages include frog rearing, family fish pond and training for livestock management. Some essential supplies have been provided to several schools. THPC runs a school and a health center adjacent to the power plants that are open to the public in the area.

7. THPC released a fisheries study in late 2004. In addition THPC has conducted several erosion and erosion/sedimentation studies for the Nam Hai and Nam Hinboun downstream of the regulating pond. THPC has informed that claims for land loss due to bank erosion are paid in full. The process in assessing the claims and compensation is through direct consultation with the Project Affected People (PAP). The land is accurately measured at the fair market value and compensated accordingly. If it is an agricultural land, the replacement land is secured before compensation is made to ensure that the head of the family do not spend the compensation money on something else and leave the family with no land. In some cases, replacement land is levelled and graded before the PAP takes over. The agreement on compensation is signed with individual PAP and witnessed by the village chief.

8. One of the provisions of the Logframe was that an independent review should be undertaken from time to time. THPC decided to undertake this review at the end of 2004 with the overall objective being to examine the effectiveness of THPC's mitigation and compensation activities; and in particular, to examine the strategy and actual implementation of Logframe activities as well as the operations of EMD, and to make, where appropriate, recommendations to improve EMD's performance with such matters. The preparation of the ToR and the selection of consultants were done in cooperation with International River's Network. The following is a summary of the 28 main findings and recommendations made by the Team.

- In general, the Social Impact Compensation Strategy is well conceived, the implementation of activities is largely successful, and the community development aspect

of the Project rate very well when compared to other projects in Lao PDR undertaking similar tasks in Lao PDR. More follow up and fine-tuning is required in the field.

- EMD management is efficient and effective; staff were praised for their dedication. The consultants recommended that the management style of EMD should continue more or less in its present form. However, the consultants recommended that staffing levels be slowly increased and their mandate extended given the complex nature of many social mitigation activities and the simple socio-economic status of many AP within impacted villages. THPC is recruiting additional staff as and when needed. For example, a fisheries specialist was recruited recently to implement fisheries activities. While the more progressive farmers have successfully adopted many activities, the consultants recommended closer supervision of the poorer members of the village. There was a real concern that the poorest sectors of the impacted communities and those relying on aquatic resources for their livelihoods and diets, may not be adequately covered by the activities to date.
- The consultants recommended that the villages in the lower Nam Kading area should be brought into the main framework of EMD activities. Throughout 2005, additional staff were recruited to handle multiple activities in lower Nam Kading and other project impact areas. With increased staffing, EMD was now in a better position to selectively target the need of these villages.
- Erosion of riverbanks continues to be an issue in the Nam Hai and Nam Hinboun. The consultants recommended an automatic stage recorder in the Nam Hai to assist in the determination in the erosion processes, and the subsequent turbidity of the water. The consultants also recommended that additional studies be carried out to establish whether erosion is increasing, decreasing or stabilizing. THPC has started improving the monitoring program to ensure proper assessment of the situation on the ground. This would enable them to better evaluate where actions are required. THPC has been taking remedial actions when there are imminent or potential erosion problems.

9. THPC found the independent review process to be quite constructive. They are planning to undertake a similar review in the near future.

Further Developments

10. THPC is now preparing a feasibility study for the Theun Hinboun Extension which the Company expects will be the basis for finalizing the PPA with EGAT in the fourth quarter of 2006. The expansion project consists of building a dam on the Nam Gnouang, a tributary of the Nam Theun upstream of the Theun Hinboun power intake. The dam will create a reservoir that will regulate the river flows into the Theun Hinboun head pond and increase power output in the dry season. The extension project also includes increasing the installed capacity at the existing power house, and possibly building a small hydropower plant at the new dam. The extension project is scheduled to be commissioned in 2011. THPC informs that the Feasibility Study includes environmental and social safeguard studies compatible with IFI requirements. THPC is also using the results of the 2004 independent review to develop the appropriate mitigation measures of the new extension project. THPC has engaged an expatriate Environmental and Social Manager who initially will be responsible for the execution of the Environmental and Social Management Plan of the new extension project, and who later will integrate the existing work of the EMD.