

7th IAG REPORT

THE WORLD BANK APPROACHES TO SOCIAL, ENVIRONMENTAL, GOVERNANCE AND FINANCIAL ISSUES IN THE NAM THEUN 2 HYDROPOWER PROJECT

Lao PDR

May 2007



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Front Cover Photographs: Clockwise: Marker at the entrance to Nakai Dam, Xe Bang Fai River, Children of Nakai Tai Village, Elders of Ban Lao Na Ngam in Gnommalath District

Inside Cover Photograph: L-R. Mary Racelis, Rob Laking, Lennie Santos-Borja, Dick de Zeeuw, and Jacques Gerin at the Nakai Dam construction site

Table of Contents

EXECUTIVE SUMMARY	i
SUMMARY OF RECOMMENDATIONS	xi
1. INTRODUCTION	1
2. DEVELOPMENTS SINCE THE 6th MISSION	2
2.1 Construction	2
2.2 Resettlement	2
2.3 Project Management and Coordination	3
3. KEY OBSERVATIONS AND FINDINGS DURING THE 7TH MISSION	4
3.1 Construction activities	4
3.2 Resettlement	5
3.2.a. Housing	
3.2.b. Economic and social development in the Nakai Plateau	6
3.2.c. Issues and concerns	7
3.2.d. The Vietic community: a special case	10
3.3 Downstream Program (DSP)	11
3.3.1 Pilot testing and scaling-up of livelihood options	13
a. Crop production	13
b. Livestock raising	13
c. Aquaculture fisheries	14
3.3.2 Opportunities for women: weaving and handicraft	15
3.3.3 Monitoring of impacts and evaluation of the DSP	16
3.3.4 Use of excess water for domestic use and irrigation	18
4. ENVIRONMENTAL ISSUES	19
4.1 Dust Pollution	19
4.2 Biomass clearing in the plateau	19
4.3 Biodiversity conservation and Asian elephant study	20
4.4 Waste management	21
5. SOCIO-CULTURAL ISSUES	21
6. PARTICIPATION AND INVOLVEMENT OF CIVIL SOCIETY AND NON-PROFIT ASSOCIATIONS (NPAs)	22

7. COMMUNICATION AND INFORMATION	23
8. CAPACITY BUILDING AND EDUCATION	25
8.1 Opportunities for the youth	25
8.2 Opportunities for women and the elderly	26
9. PROJECT MONITORING AND EVALUATION	27
10. FINANCIAL MANAGEMENT	29
11. THE FUTURE OF HYDROPOWER	33
12. FINAL NOTE	35
ACKNOWLEDGEMENTS	36
Appendix 1: SCHEDULE OF 7th MISSION ACTIVITIES	
Appendix 2: ACRONYMS	

EXECUTIVE SUMMARY

7th IAG Mission Report

NAM THEUN 2 HYDROPOWER PROJECT

INTRODUCTION

The International Advisory Group (IAG) for the Nam Theun 2 Hydropower Project carried out its 7th Implementation Review Mission from February 5 to 16, 2007. They took off from the issues and concerns that were identified during the 6th mission, which examined the project management and institutional set-up, the unequal pace in dealing with environmental and social concerns *vis a vis* the speed of construction, the delay in the salvage logging operation which may hamper the scheduled inundation of the Nakai plateau, capacity building and capability gap, and the challenges posed by the NT2 Hydropower Project as an engine of growth for Laos and the Lao people.

With the addition of three more experts in the field of Governance and Management of Public Finance, Environmental, and Socio-Cultural Aspects of Development, Public Participation, Community Development and Gender, the IAG could take a more in-depth look into these areas of concern.

KEY OBSERVATIONS, FINDINGS AND RECOMMENDATIONS

Institutional

- **Project Management and Coordination has improved.** As the lead financial institution for the NT2 Project, the World Bank has made important and positive changes by shifting key management responsibilities from its Washington D.C. headquarters to the Regional Office in Bangkok and the Country Office in Vientiane.
- The Country Manager, in his capacity as the Vientiane-based Coordinator for the NT2 Project, has been delegated the authority to engage with the GOL and NTPC in addressing operational issues. This resulted in improved coordination that has largely resolved the two main issues raised during the last mission, namely, the resettlement of villages and the salvage logging activities.
- The WB-Vientiane office has bolstered its technical and support staff, the latter consisting of an impressive group of Lao personnel. Experts in Fisheries

and Agriculture are needed considering the agricultural location of the project and the agriculture- and fisheries-based livelihood programs envisioned for the plateau and downstream areas.

- The GOL established the new Ministry of Energy and Mines to direct greater attention to these key sectors for the development and growth of the nation. The NT2 Steering Committee has been restructured with no less than the Standing Deputy Prime Minister (for Government Administration) as chairman, an affirmation that the NT2 Project does indeed represent a key engine of growth for Lao PDR.
- The GOL has established a Salvage Logging Committee to oversee this activity. The Environmental Management Unit (EMU) at Khammoune was tasked to look into the logging roads, logging boundaries and the salvage logging areas. **The current major issue is on the allowable amount of biomass that can remain on the plateau without negatively affecting the water quality.** NTPC has commissioned a study to address this valid concern. The IAG believes that it would be more effective and practical to remove the biomass only in specific areas that the on-going study can identify, since removing all the biomass is expensive and time-consuming and would have its own negative impacts.
- **The Nam Theun 2 Power Company (NTPC) has developed an effective catch-up plan to meet several project milestones.** The diversion of the Nam Theun River was successfully carried out in March 2006. The Nakai Dam and its auxiliary structures are 50 to 55 % completed in preparation for the impounding of the reservoir in mid-2008. An agreement to use the existing construction roads for the transport of salvaged logs has speeded up salvage logging activities in the Nakai Plateau.
- **Resettlement of villages is progressing.** Of the 17 villages consisting of 1200 families to be relocated on the plateau before the reservoir impoundment, 10 villages with 600 families have voluntarily moved to their new village sites. The project target calls for all the vulnerable communities to be relocated by mid-2008.

Construction

- **Voluminous clouds of dust** still pose difficulties in the construction areas. The “vegeneering” technique being applied (the use of vegetation to stabilize the slopes and prevent soil erosion) needs re-examination, since large portions of the planted vetiver grass have withered, perhaps because of the dry spell. The contractors need to find a longer-term solution to the overwhelming dust problem than simply watering the soil. The use of salt and other technologies should be explored.

- **Monitoring of respiratory system and health impact assessment** should be conducted by the Health Program Management Unit of NTPC and the respective Provincial Government with jurisdiction over the project areas. Compensation packages should be determined in case of negative impacts on health.
- With some 140 kilometers of roads that were built, re-built or widened, **road safety has emerged as an important issue**. Construction vehicles run at faster speeds, endangering the lives of children, village residents, and animals that wander onto the road. Village-based information, education, and communication (IEC) schemes, featuring campaigns and school training programs for road safety aimed at villagers unaccustomed to passing traffic should be instituted. Road and warning signs in Lao should be put up at strategic points.

Resettlement

- **The shortage of wood supply** has delayed the construction of houses in the resettlement areas. Temporary houses were built in anticipation of forthcoming supplies of quality wood. At the request of the Governors of Khammoune and Bolikhamsay Provinces, the Minister of Agriculture and Forestry agreed to allocate the needed timber for the resettlement houses in coordination with the Village Forestry Association (VFA).
- **The sustainability of income and sustainability of cultural adaptation are key issues in the resettlement villages**. Shifting from long term practice of a slash-and-burn economy which the village community knew how to manage and which brought a sense of security and coherence to their lives, to a new lifestyle with much-appreciated health, education, water, and housing benefits, but no certainty as to its sustainability. Despite all the careful planning and implementation, this may lead to the loss of cultural identity, to tribal demoralization and may even threaten the groups' survival. The target level of income may be hard to maintain and may force people to look for income opportunities elsewhere which may affect family and culture. Continued monitoring through interaction with people, preferably using anthropological participant-observation and focus group discussion techniques, and utilizing not only quantitative but also qualitative assessments of adaptation and cultural stress levels should be implemented.
- **There is always the risk of long-term dependency on NTPC** as a consequence of continuing resettlement packages. The criteria for phasing out support should be reviewed. They should be based on the unfolding situation as resettlement progresses and livelihood packages are implemented and tested.

Downstream impacts and downstream program

- NTPC completed the downstream restoration program in October 2006 and issued the implementation manual a month later. Both incorporate the results of hydraulic studies predicting the **extent and quantification of possible negative impacts on the main livelihoods** (fisheries, crop production and livestock raising). These potential threats have surfaced because of the trans-basin transfer of water from the dam, leading to increased water volume and flow of the Xe Bang Fai (XBF) River.
- NTPC must ensure that the GOL, especially in the Provincial level, is part of the daily information loop that features developments in the Downstream Program so they can participate more actively and effectively, not only in the DSP review but also in the implementation, monitoring and performance evaluation of the DSP. **Intensive participatory monitoring should be carried out so that the impacts can be identified rapidly and addressed immediately.**
- The GOL in coordination with NTPC should come out with a concrete plan to **tap excess water for irrigation to ensure a year round supply of water for downstream farmers.** NTPC has set up certain conditions that require commitment both from the Provincial Government and the villagers, before irrigation can be implemented, one of which is the organization of farmers into water users associations and the collection of water use charges. The Provincial Government, with the possible assistance of the World Bank and qualified NGOs, should take the initiative to organize farmers into water users associations, with women figuring prominently among the members. Water pricing study should be done with technical assistance from the World Bank. The schedule should have enough lead-time for the construction of the necessary infrastructure before the operation of the NT2.
- **Development of alternative livelihood for the downstream community is accelerating.** This could lead to an expanded and competitive economy where some people will do better than others. Effective technical support and good communication of risks and solutions should be in place.
- **Weaving seemed to be the most desired livelihood option for village women.** They articulated several reasons for their interest in this activity, among which are greater financial security and self-fulfillment in learning new craft. Both the NTPC and the World Bank have provided financial support to this emerging enterprise. The Lao Women's Union has indicated to the IAG their great interest in and capacity for helping local women, provided they receive the necessary financial and technical support to do so.

Participation and involvement of civil society and Non-Profit Associations (NPAs)

- The International NGOs (INGOs) are collaborating effectively with the GOL in programs of poverty reduction, with a focus on poor, isolated and vulnerable groups; environmental sustainability; people's participation; and capacity development. **The WB, GOL and NTPC should continue and enhance collaboration and productive dialogue with International NGOs**, drawing extensively on the latter to help strengthen government capacities to carry out programs that are transparent, responsive, and accountable to the citizenry of the Lao PDR. Several Lao Non-Profit Associations (NPAs) with specific aims in health, resource management, and other socio-economic concerns have emerged on the local scene. Working closely with government units carrying out related programs, these groups of enthusiastic young Lao men and women show excellent potential for enriching programs that link communities effectively with government development programs. **The GOL should encourage the participation of emerging Lao Non Profit Associations (NPAs)**. Fostering the organization of Lao civil society groups, or NPAs, working effectively with poor, vulnerable and isolated citizens will multiply committed development partners on the ground, and address the need for local-specific and culturally relevant information and activities that are crucial to successful community initiatives.

Communication and information

- Community members expressed to the IAG their **confusion and dissatisfaction with the way in which compensation for the loss of their land and harvest was being implemented**. Some farmers felt that NTPC was unfair because other farmers got a better deal even if they are from the same area. To minimize the information gap, the details behind the compensation schemes should be communicated clearly to the people by NTPC and the GOL. The procedure needs to be explained, including the involvement of the local government especially in the disbursement of funds for compensation. In this regard, more can be done in communicating with the villagers using both traditional and modern methods of communication. There is also a need to follow up with the villagers, give them regular feedback, and in the process develop trust between and among the different institutions.

Capacity building and education

- The level of expertise and education of the Ministers of the GOL and their key staff as well as those of the other major government institutions involved in the NT2 Project are impressive. However, **the number of well-trained staff pales in comparison to the enormous tasks ahead to ensure that the**

NT2 Hydropower Project can drive forward the growth and development of Lao PDR and the Lao people. At the provincial, district and village levels, the capacity of local officials is gradually being developed to enable them to perform their new tasks under the NT2 project.

- In this mission, **the IAG gave more attention to capacity development of the people in the project areas** as a result of closer interaction with the PAP's during the project site visit. Some of the young people present during the meetings emphasized their desire to pursue higher education in business, teaching, and medicine, so they can be of help to their community. While their parents are generally supportive, they also fear that their children will not return once they savor the enticements of Vientiane and other cities. Hence, parents hope the project will bring on-site work opportunities for their adult children.
- The GOL should ensure that part of its **Poverty Reduction Fund** is allocated to establishing schools for secondary and even tertiary level education that is reasonably accessible to the young adults in the villages. Scholarship grants should also be made available to deserving students and should be allocated equitably among the provinces, with priority to the poorest ones.
- The GOL should organize **credit and training programs** in income generation activities, especially for out of school youth (men and women) and institute tutoring programs for those falling behind. The World Bank, through the **Lao Environment and Social Project (LEnS)**, should take a more active role in helping the GOL market the opportunities for capacity development in the field of natural resource management, social engineering, and other related fields that would prepare the students for future hydropower or other development projects, not only in Vientiane but in the other provinces.
- The **Lao Women's Union** involvement in the NT2 project is evident at the provincial and district levels, where empowerment of the members is promoted through micro-credit facilities and livelihood projects. In terms of education, the IAG learned that men are more literate than women. Preference is also given to the head of the family to avail of the Village Development Fund. The LWU in the district and village members should be encouraged and supported to be more active in communicating the needs of the women in the villages to the LWU headquarters in Vientiane, which in turn brings the information matter to the attention of the GOL.
- One striking observation by the IAG is the seeming **lack of suitable programs for the elderly or disabled in the project-affected areas**. A significant number of senior citizens, especially in the downstream areas, remain actively involved in their farms. But there is a need to open other opportunities for them in preparation for their having to relinquish rigorous cultivation tasks in the near future. The same mandate applies to disabled

men and women. The World Bank and the GOL should seriously consider establishing an adult literacy program in the villages, which would be convenient for interested older persons and adults to join. Skills training centers should also be established in the villages to provide better opportunities to women and the elderly.

Project monitoring and evaluation

- During the 6th IAG mission in 2006, which is the first oversight mission on the implementation of NT2, the NTPC has expressed its concern on the number of internal, external and independent review missions that have hindered their work. Thus, the IAG advised the NTPC, GOL and the World Bank to agree on a **structured and programmed external and internal monitoring plan that minimizes monthly (dry season) visits.**
- Since the financial close of the NT2 in June 2005 until this mission of the IAG, which spans 639 working days, there have been **354 days (55%) of external monitoring**, which by any standard is very intensive. This degree of scrutiny reflects how crucial the Project is to the financial institutions and investors, leaving no room for failure.
- NT2 has **fixed realities** in so far as the Concession Agreement is concerned, thus there is a need to work within its bounds. For the different monitoring activities to be efficient, better coordination of the monitoring visits should be done. Some can be scheduled simultaneously rather than consecutively.
- The World Bank should play an active role in consolidating and synthesizing all the recommendations and solutions to certain issues and concerns, like those given by the IAG and POE, the IFIs, etc. and **monitor on the follow-up actions by the institutions concerned.** It should publish the monitoring and review mission reports in Lao for better understanding and appreciation of the Lao people.
- NTPC has started looking deeply into this concern and has come out with a **NT2 monitoring framework** taking into account the 5 different layers of monitoring by the internal, external and independent monitors. It would be best for the World Bank and the GOL to consider and come out with a harmonized solution to address the issue.
- The problems that surfaced from this intensive monitoring can be a **deterrent for adopting the NT2 approach for sustainable hydropower development** in the country. This should be part of the lessons learned from the Project, so that in future projects, the financial arrangements can be simplified and that the multi-purpose monitoring can be planned well to maximize the time and effort of everyone concerned.

Financial management

- The Revenue Management Arrangements (RMA) for use of net NT2 revenues, provide that NT2 funds will not be released for the government budget unless it can show among other things that it has **financial management systems in place of sufficient quality** to assure that the revenues will result to increased services of benefit to the poor. Significant improvements to GOL financial management will be required if the GOL is able to meet these undertakings. The IAG would like to urge the GOL's development partners to be prepared for some flexibility. They should recognize that these improvements are a long and complex process and give due weight to intentions and commitments.
- In its National Social and Economic Development Plan for 2006-10 (NSED), the GOL is clear on the main priorities for additional pro-poor spending, in education, health, rural infrastructure and agriculture. We support the efforts of the GOL and the World Bank to ensure that budgeting decisions, and particularly selection of eligible pro-poor programs, are made in the context of **sector strategies**. The Committee on Planning Investment (CPI) should work within clear investment and recurrent spending limits and assess proposals against the objectives of sector strategies.
- An ambitious program of improvement to public financial management – the Public Expenditure Management Strengthening Program (PEMSP) – is underway. The program is not driven by NT2 RMA requirements but by the wider objectives of the GOL for improving its financial management. The important contributing elements of the PEMSP include moving towards a **single integrated Financial Management Information System (FMIS)** with fully automated processing of receipts and payments; a new Chart of Accounts to enable identification of expenditure by output and location; basing budget planning on the output classifications; and effective external financial and systems auditing.
- Most of the significant pro-poor programs in the GOL are delivered at the provincial and district level. The RMA will come into effect in the context of a very significant **rearrangement of central-local fiscal relations**. The new Budget Law and Decree will at the same time centralize revenue collection, give provinces the responsibility for developing their budgets within national norms and guidelines, and strongly centralize control of budget execution and payments in the national Treasury. To ensure alignment of provincial budgets with national objectives, a new system of budget norms must be developed. New systems of accounting and control at the provincial level, the collection of non-financial performance information, and the ability of the centre to audit provincial and district financial and non-financial performance are critical to the new system. This will require a major strengthening to support these changes. All these requirements are important for the RMA as well.

- **Strengthening national audit through the State Audit Office (SAO)** is also important. The shift of the SAO out of the Prime Minister's office to report to the National Assembly is potentially a significant step in public governance in Laos. The Auditor-General is clear that this will enable him to report directly to the people of Laos. The priorities for the SAO are to strengthen its capabilities in financial audit as an integral element of the overall PEMSP.
- The SAO should have authority to **audit the accounts of the NTPC**. Actual detailed audit could be undertaken by the company's auditors, but under the overall control of the SAO and with the participation of SAO staff.
- More generally, the IAG is pleased to hear that the World Bank is working with the Public Administration and Civil Service Authority (PACSA) on the further development of a program of **civil service reform** and look forward to continued close cooperation between the Bank and PACSA on this initiative.
- The World Bank should work with other donors, multilateral and bilateral, to develop the proposed MDTF as a means of harmonizing donor support with the objectives of the PEMSP and the proposed MDTF.
- **The level of commitment of the World Bank to the NT2 project and to institutional strengthening in the GOL is very impressive.** A great deal of institutional knowledge and trust relationships with GOL are being developed in the WB Country Office, supported by the Bangkok Regional Office. NT2 and PEMSP are at a critical stage over the next three years and it is important that there is as much stability as possible in World Bank staff over this period to capitalize on the progress already made.

THE FUTURE OF HYDROPOWER

- With the series of planned hydropower projects along the Nam Theun River, the GOL is faced with the challenge of extending the NT2 approach to those projects that are not funded by the World Bank nor the ADB. At this point, NT2 cannot fully be considered as a model since the project is not yet completed. Likewise, the World Bank, with its prominent presence in the Region and in Vientiane is faced with the challenge of ensuring that the standards set in NT2 should be pursued so as not to defeat the larger goal of sustaining the operation of NT2 and other similar projects and at the same time ensuring the conservation of the watershed that feeds water into the Nam Theun River.
- The GOL should come out with a comprehensive cumulative impact assessment of all the hydropower projects along the Nam Theun River in the framework of an Integrated River Basin Management. This should also be

linked to the Greater Mekong River Basin of which the Nam Theun Basin is a sub-basin.

- The National Policy on Hydropower should be formulated soon by the GOL in light of the increasing demand for hydropower, either for local utilization or for export to neighboring countries.
- The World Bank and GOL need to come out with information materials on all on-going projects in Lao PDR that are linked to NT2 for better appreciation of the Lao people and various independent monitors such as the IAG.
- It is time for NTPC, GOL and the World Bank to publicize the lessons learned since the implementation of the NT2 and their implications for future hydropower projects.
- The World Bank should consider participating in an International Conference on Post-Facto Evaluation of Official Development Assistance in the Greater Mekong Subregion, being planned by NGO, academic, and other civil society groups at Northern Illinois University, Dekalb, Illinois.

FINAL NOTE

The IAG greatly appreciated the interest and cooperation of the many people who contributed to this report. In particular, the members felt highly honored at the hospitality shown us by the villagers, who welcomed us warmly and bestowed on us the privilege of participating in the traditional basi ceremony. We earnestly hope that the product of our collective efforts will redound to their benefit and to that of the entire Lao people.

SUMMARY OF RECOMMENDATIONS	Responsible Institution
I. Institutional concerns	
1. The World Bank should augment its technical staff in Vientiane with experts in agriculture and fisheries to guide and support livelihood activities in both the downstream areas and in the plateau.	WB
2. The Salvage Logging Committee, with strong support from the Provincial Government, should closely supervise the activities of the contractors. The protocol for reporting violations by the EMU should be firmly in place so that higher authorities, like the Governor or the Minister of Forestry, can act judiciously on such violations.	GOL
3. Closer supervision and training of the Village Forestry Association on the management of wood procurement, allocation and distribution for permanent house construction is necessary.	GOL, NTPC, WB GOL
4. The duties and responsibilities of the Watershed Management Protection Agency and the Reservoir Management Authority should be delineated immediately and conceptually harmonized in an integrated lake basin management and development framework.	GOL
5. Work out a concrete plan to tap the discharged water from the powerhouse into the Xe Bang Fai River for irrigation including the organization of farmers into water users association and training them to operate the irrigation system. The Provincial Government, with the possible assistance of the World Bank and qualified NGOs, should take the initiative to organize farmers into water users associations, with women figuring prominently among the members. Water pricing study should be done with technical assistance from the World Bank.	GOL (Ministry of Irrigation and Agriculture), NTPC, WB
II. Construction	
6. A longer-term solution to the overwhelming dust problem should be implemented than simply watering the soil. The use of salt and other technologies should be explored.	NTPC
III. Health and Safety	
7. Carry out a health impact assessment (HIA) and develop a program to monitor the condition of the respiratory systems of project affected persons (PAPs).	The Health Program Management Unit of NTPC and the

	Provincial Governments
8. Compensation packages should be determined in case of negative impacts on health.	NTPC, WB
9. Provide sidewalks or designated walking areas, and set up speed limits in construction roads to remedy the risk of accidents to pedestrians. Road and warning signs in Lao should be put up at strategic points.	NTPC
10. Village-based information, education, and communication (IEC) schemes, featuring campaigns and school training programs for road safety aimed at villagers unaccustomed to passing traffic should be instituted.	NTPC in collaboration with local chapter of specialist International NGOs, like the Road Safety International Associates or Handicap International.
IV. Environment	
11. The results of the NTPC's biomass study are needed for an informed decision on the issue. It would be more effective and practical to remove the biomass only in specific areas that the on-going study can identify, since removing all the biomass is expensive and time-consuming and would have its own negative impacts.	NTPC, GOL
12. Begin advocating the three R's (reduce, re-use, recycle) in the resettlement areas and in the downstream areas. Training in solid and liquid waste management should be in the pipeline of training packages.	NTPC, GOL
V. Resettlement	
13. Once the permanent houses are built, policy guidelines concerning the continued use and existence of temporary houses need to be formulated.	NTPC and the GOL's Resettlement Committee.
14. The IAG commends the GOL for its flexibility and understanding in allowing the Vietic community to select a site more compatible with its cultural perspectives. They should be entitled to compensation packages, regardless of the number of households.	GOL, NTPC
VI. Socio-economic	
15. The adjustment to important livelihood and lifestyle changes (from slash-and-burn forest cultivator-hunter-gatherers to settled commercial crop farmers) must be closely monitored with appropriate assistance that takes	NTPC, GOL and WB

into consideration the complexities of agricultural transformations.	
16. Steps toward a gradual decrease of dependence on NTPC should be instituted and publicized in consultation with the settler-farmers. The settlers need to move toward increasing levels of economic independence at a reasonable but progressive pace.	NTPC, WB and GOL
17. Assessment of the sustainability of livelihood should be done at the household rather than village level. It allows the identification of those households needing better support in adjusting to new forms of livelihood and changing lifestyles.	NTPC, GOL, WB
VII. Socio-cultural	
18. Attention should be given to the possibility that socio-cultural and economic programs may not keep pace with the fast-moving technical components of NT2 operations. A broader concept of development is needed, anchored not solely on the achievement of income targets, but measured also by quality of life indicators, e.g., health and sanitation, education, housing and other basic services, livelihood, information, and participation.	GOL, NTPC, WB
VIII. Downstream Program	
19. The GOL, especially in the Provincial level, must be included in the daily information loop that features developments in the Downstream Program so they can participate more actively and effectively, not only in the DSP review but also in the implementation, monitoring and performance evaluation of the DSP.	NTPC, GOL
20. Regular and detailed evaluation should be done on the various alternative livelihood schemes set in motion to offset reduced income attributable to the increased water level of the Xe Bang Fai River. Careful examination of outcomes will allow fine-tuning and identification of more viable options in the event of failure. In case of failure, make provision in the livelihood restoration fund for remedial actions. Crop insurance mechanisms might also be applied.	NTPC, GOL, WB
21. The desire of women to be engaged in weaving should be supported both institutionally and financially. Explore the viability of the “one town, one product” (OTOP) concept, in which each village or district specializes in a particular design, weaving material, or finished product, such as bags, table cloths and table	NTPC, GOL through the LWU, WB

runners, mobile phone holders, etc.	
IX. Participation and Involvement of Civil Society and Non-Profit Associations (NPAs)	
22. Continue and enhance the productive dialogue with International NGOs, drawing extensively on the latter to help improve multi-stakeholder processes, people's participation and claim-making, and strengthen government capacities to carry out programs that are transparent, responsive, and accountable to the citizenry of the Lao PDR.	NTPC, GOL, WB
23. Encourage the participation of emerging Lao Non Profit Associations (NPAs). Fostering the organization of Lao civil society groups, or NPAs, working effectively with poor, vulnerable and isolated citizens will multiply committed development partners on the ground, and address the need for local-specific and culturally relevant information and activities that are crucial to successful community initiatives.	GOL
X. Communication and Information Dissemination	
24. The World Bank should publish the monitoring and review mission reports in Lao for better understanding and appreciation of the Lao people.	WB
25. The actions of the World Bank, GOL and NTPC on the recommendations of the IAG, especially those concerning the PAP's should be disseminated. There is a need to follow up with the villagers whom the IAG and the different monitors have talked to by giving them regular feedback so they would know that something was done or cannot be done due to valid reasons. In the process, trust is developed.	WB, NTPC, GOL
26. The details behind the compensation schemes should be communicated clearly to the people using both traditional and modern methods of communication. The procedure needs to be explained, including the involvement of the local government especially in the disbursement of funds for compensation.	NTPC, GOL
27. Information on the DSP and the Manual itself should be translated into Lao for improved communication and action on the part of the GOL and the Lao people who, ultimately, will be the implementers.	NTPC
28. Bring in Lao facilitators who can manage the direct engagement with villagers and who are articulate enough to explain and gauge if the information being conveyed is clearly understood by both the villagers and	NTPC, WB

the project staff.	
29. The LWU in the district and village members should be encouraged and supported to be more active in communicating the needs of the women in the villages to the LWU headquarters in Vientiane, which in turn brings the matter to the attention of the GOL.	GOL, LWU
XI. Capacity building and education	
30. The World Bank, through the Lao Environment and Social Project (LEnS), should take a more active role in helping the GOL market the opportunities for capacity development (formal education and/or on-the-job training) in the field of engineering, natural resource management, social engineering, and other related fields relative to the future turnover and operation of the NT2 and also in preparation for future hydropower or other development projects.	WB, GOL
31. Part of the Poverty Reduction Fund (PRF) should be allocated to establishing schools for secondary and even tertiary level education that are reasonably accessible to the young adults in the villages. Scholarship grants should also be made available to deserving students and should be allocated equitably among the provinces, with priority to the poorest ones.	GOL
32. Organize credit and training programs in income generation activities, especially for out of school youth (men and women) and institute tutoring programs for those falling behind.	GOL, NTPC
33. Establish an adult literacy program in the villages, which would be convenient for interested older persons and adults to join.	GOL
34. The LWU's advocacy in favor of women's empowerment and greater equality with their husbands through increased earning and managerial skills should be supported. Create opportunity for both husband and wife to access the VRF as one household, even if they proposed separate projects for funding. In such cases, both spouses should undergo training on how to prepare a joint business plan as a prerequisite for obtaining a VRF household loan.	GOL, NTPC
XII. Monitoring and Evaluation	
Project Implementation	
35. NT2 has fixed realities in so far as the Concession Agreement is concerned, thus there is a need to work within its bounds. For the different monitoring activities	NTPC, WB, GOL

<p>to be efficient, better coordination of the monitoring visits should be done. Some can be scheduled simultaneously rather than consecutively.</p>	
<p>36. The World Bank should play an active role in consolidating and synthesizing all the recommendations and solutions to certain issues and concerns, like those given by the IAG and POE, the IFIs, etc. and monitor the follow-up actions by the institutions concerned. NTPC has started looking deeply into this concern and has come out with a NT2 monitoring framework taking into account the 5 different layers of monitoring by the internal, external and independent monitors. It would be best for the World Bank and the GOL to consider and come out with a harmonized solution to address the issue.</p>	WB, NTPC, GOL
<p>37. The World Bank and other monitoring entities should ensure that the performance monitoring of the entire downstream program extends beyond the pilot villages for possible residual impacts in neighboring areas. NTPC should allocate funds for the mitigation of these residual impacts and for the compensation of affected people. There is also a need to differentiate the monitoring and evaluation activities for environmental, social and residual impacts from compensation benefits.</p>	WB, NTPC
<p>38. The World Bank can assist the GOL in monitoring the progress of downstream activities so that results can emerge in timely fashion before the release of excess water from the Power Station.</p>	WB, GOL
<p>39. Participatory monitoring should be promoted, drawing on the community-oriented skills of NGO's with the requisite expertise applied to environmental, social and economic impacts.</p>	NTPC, GOL, WB
<p>40. As a member of the Mekong River Commission (MRC), the GOL should solicit the active participation of the MRC especially in the assessment of the Downstream Support Program and the impact of releasing water into the Mekong River, especially on the fish population.</p>	GOL
<p>41. The problems that surfaced from intensive monitoring can be a deterrent for adopting the NT2 approach for sustainable hydropower development in the country. This should be part of the lessons learned from the Project that needs to be disseminated, so that in future projects, the financial arrangements can be simplified and that the multi-purpose monitoring can be planned well to maximize the time and effort of everyone</p>	WB, GOL, NTPC

concerned.	
Sustainability of Livelihood	
42. Beyond resettlement, compensation and off-setting losses from traditional sources of livelihood, the Project should develop criteria to assess the quality of life and general well-being of the villagers in all the impact areas. Skills training assessment should include the cascading effect on the household and on the community.	NTPC
43. The World Bank's Social Safeguards Team as well as the RMU need to review the survey structure and questions developed by NTPC to assess the sustainability of livelihood and improvement in well-being of the PAPs. This will enable NTPC to fine-tune the instrument toward maximum effect in terms of objectivity and usefulness.	WB, NTPC
XIII. Financial Management	
44. As milestones for improvements to GOL financial management systems approach, the partners should review them and take into account the spirit and intent of the GOL's improvements as well as the letter of its commitments.	WB and other IFI's
45. In its development of project proposals through participatory planning, the Committee on Planning Investment should work within clear investment and recurrent spending limits and assess proposals against the objectives of sector strategies.	GOL-CPI
46. In reporting performance against the requirements of the RMA for pro-poor programs, priority should be given to developing stable basic measures of services, which can be maintained to an auditable standard at a district level. Consultative processes that bring in the views of affected citizens at community levels and encourage their participation will contribute to more workable financial schemes.	GOL
47. The priorities for the Supreme Audit Organization should be to strengthen its capabilities in financial audit as an integral element of the overall PEMSP, but in the longer term needs to develop its capacity to report on the quality of execution of the budget in non-financial as well as financial terms.	GOL-SAO
48. The SAO should have authority to audit the accounts of the NTPC. Actual detailed audit could be undertaken by the company's auditors, but under the	GOL-SAO

overall control of the SAO and with the participation of SAO staff.	
49. The World Bank should work with other donors, multilateral and bilateral, to develop the proposed MDTF as a means of harmonizing donor support with the objectives of the PEMSP and the proposed MDTF.	WB
50. The World Bank should aim for as much stability as possible in World Bank staff over the next three years to capitalize on the progress and to see NT2 and PEMSP through the next critical stage of commissioning and the start of revenue flows to the GOL.	WB
XIV. Future of Hydropower	
51. A comprehensive cumulative impact assessment of all the hydropower projects along the Nam Theun River in the framework of an Integrated River Basin Management should be done. This should also be linked to the Greater Mekong River Basin of which the Nam Theun Basin is a sub-basin.	GOL
52. The National Policy on Hydropower should be formulated soon in light of the increasing demand for hydropower, either for local utilization or for export to neighboring countries.	GOL
53. The staff complement of the GOL who play crucial roles in developing a National Policy on Hydropower and in monitoring compliance to this policy, as well as those involved in environmental compliance of development projects including the NT2, should be strengthened and capacity development be prioritized.	GOL
54. The World Bank and GOL need to come out with information materials on all on-going projects in Lao PDR that are linked to NT2 for better appreciation of the Lao people and various independent monitors such as the IAG.	WB, GOL
55. The LEnS project is time-bounded with fixed financial support. The GOL should set aside part of the revenue from NT2 and other development hydropower projects to sustain the program under the LEnS project.	GOL, WB
56. It is time to publicize the lessons learned since the implementation of the NT2 and their implications for future hydropower projects.	NTPC, GOL, WB

7th IAG Mission Report

NAM THEUN 2 HYDROPOWER PROJECT

1. INTRODUCTION

The International Advisory Group (IAG) for the Lao PDR Nam Theun 2 Hydropower Project (or simply NT2) carried out its 7th Implementation Review Mission from February 5 to 15, 2007. Taking off from the issues and concerns that were identified during the 6th mission, it focused on the performance of tasks in accordance with the revised Terms of Reference (TOR) issued in March 2006. The TOR listed the following responsibilities:

- (a) To 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 Lao Government (GOL) agencies, management of revenues originating from the sale of electricity generated by the Project, and other issues of governance;
- (b) To recommend to the World Bank Group (WBG) practical and cost-effective actions that it needs to undertake and/or raise with the GOL and the Nam Theun 2 Power Company Ltd. (NTPC) to address the problems identified, with an emphasis on issues concerning capacity building and institutional strengthening.
- (c) To review the scope and quality of WBG supervision of the Project.

These specifications called for the expansion of the IAG membership to include experts in Governance and Management of Public Finance, Environment, and Socio-Cultural Aspects of Development, including Public Participation, Community Development, and Gender concerns. Thus, three experts joined the two members who conducted the 6th mission, Dick de Zeeuw (convenor) and Emil Salim (member). The new members are: Mary Racelis (Socio-Cultural Development, Participation, Community Organization, and Gender), Jacques Gerin (Environmental Management and Social Development), and Rob Laking (Governance and Public Finance). Emil Salim was not able to join the 7th mission. Technical support was again provided by Adelina C. Santos-Borja, who now acts as the IAG Secretary. Kesone Sayasane brought her experience as a Lao educator and gender specialist to the facilitation of meetings and discussions with the villagers. Further information on the IAG can be accessed at its website: <http://www.nt2-iag.org/ehome.htm>.

This report discusses follow-up actions and addresses emerging implementation issues and concerns. Additional attention has been given to public participation, gender, culture, and community organization, and revenue management. These topics were not sufficiently tackled during the last mission owing to the limited composition of the IAG at that time. The IAG activity schedule is presented in Appendix 1. Previous reports of the IAG are posted on the website. A brief history of IAG involvement over the past decade in the NT2 Hydropower Project can be found in the report of the 6th IAG mission.

2. DEVELOPMENTS SINCE THE LAST MISSION

The major concerns and recommendations from the 6th mission centered on implementation issues, such as project management and the institutional set-up, the unequal pace between environmental and social developments, on the one hand, and technical aspects of the project, on the other. The technical features include speed of construction, delays in the salvage logging operation that could hamper the scheduled inundation of the Nakai plateau, capacity building and capability gaps, and the NT2 Hydroelectric Project itself as an engine of growth for Lao PDR and the Lao people.

2.1 Construction

As of January 2007, construction activities were at various phases of completion. The diversion of the Nam Theun River was successfully carried out in March 2006. The Nakai Dam and its auxiliary structures are 50 to 55 % completed in preparation for the impounding of the reservoir in mid-2008. The power station and the switchyard have undergone massive excavation and concrete reinforcement and are at 65% completion. With the diversion of the Nam Kathang River in March 2006, activities in the regulating dam and downstream channel are now in full swing at 30% and 35% completion rates, with full completion scheduled for mid 2008. Some 140 kilometers of roads have been built, re-built or widened. "Vegeneering" (the use of vegetation to mitigate soil erosion) has gotten underway with the planting of vetiver grass along the slopes of excavated soil.

2.2 Resettlement

The resettlement of villages is likewise progressing. Of the 17 villages consisting of 1200 families to be relocated on the plateau before the reservoir impoundment, 10 villages with 600 families have voluntarily moved to their new village sites. The project target calls for all the vulnerable communities to be relocated by mid 2008.

The encouraging testimonials of villagers who have resettled in the pilot village of Ban Nongboua, as well as those from the new site of Ban Sop-On, demonstrate their satisfaction with the relocation. They cite the benefits received or expected, the compensation package, and the improved quality of life. These positive assessments have inspired other villagers to agree to make the move sooner rather than later. Some prospective beneficiaries are even expressing their impatience at continuing delays in the resettlement process that are preventing their transfer.

2.3 Project Management and Coordination

As the lead financial institution for the NT2 Project, the World Bank has made important and positive changes by shifting key management responsibilities from its Washington D.C. headquarters to the Regional Office in Bangkok and the Country Office in Vientiane.

The WB-Vientiane office has bolstered its support staff with an impressive group of Lao personnel. Accordingly, the technical capacity of the Vientiane office, including its field-based team, has been favorably affected. However, considering the agricultural location of the project and the agriculture- and fisheries-based livelihood programs envisioned for the plateau and downstream areas, and further considering the soon to be created Nakai Dam and the increase in water level of the Xe Bang Fai (XBF) River that would affect fisheries and other livelihood activities, the lack of experts in agriculture and fisheries in the Vientiane office give cause for concern.

In his capacity as the Vientiane-based Coordinator for the NT2 Project, the World Bank's Country Manager has been delegated the authority to engage with the GOL and NTPC in addressing operational issues. Improved coordination with the Government of Lao and NTPC has largely resolved the two main issues raised during the last mission, namely, the resettlement of villages and the salvage logging activities. Trust-building initiatives have led to substantial improvements on the ground, and contributed to better coordination among the staff of the GOL, NTPC and the World Bank.

In June 2006, the GOL established the new Ministry of Energy and Mines to direct greater attention to these key sectors for the development and growth of the nation. An affirmation that the NT2 Project does indeed represent a key engine of growth for Lao PDR is seen in the restructuring of the NT2 Steering Committee. No less than the Standing Deputy Prime Minister (for Government Administration) has assumed over-all responsibility for the NT2 Project and became the chairman of its Steering Committee. The secretariat of the Steering Committee is supervised by a bureau head, who was appointed at the end of 2005 to serve as GOL Project Coordinator.

With the NT2 Project firmly under the Standing Deputy Prime Minister, and the GOL making a significant effort to strengthen capacities for NT2 planning and implementation, it is expected that each of the relevant line ministries, with a well-defined mandate, will be able to work together in a more organized and effective manner, from the main seat of government in Vientiane to provincial and district levels. The GOL has empowered the Vice Governor of Khammouane Province to decide on some matters relating to the project locally. Further, an experienced government official has been appointed to head the Resettlement Management Unit.

When the World Bank's Vice President for East Asia and the Pacific visited Lao PDR in February 2007, he praised the government's action in NT2 planning and implementation. Cited were the high level of government commitment and the significant steps underway to move the country forward (*Vientiane Times*, February 2007).

As for the Nam Theun 2 Power Company, NTPC has developed an effective catch-up plan to meet several project milestones. A particularly critical issue is the timely resettlement of communities before the scheduled inundation of the plateau from May 2008 to December of that year. An agreement to use the existing construction roads for the transport of salvaged logs has speeded up salvage logging activities in the Nakai Plateau.

3. KEY OBSERVATIONS AND FINDINGS DURING THE 7TH MISSION

3.1 Construction activities

Voluminous clouds of dust still pose difficulties in the construction areas, even if some sections of the newly-built and improved roads are constantly sprayed with water to reduce pollution levels. The "vegeneering" technique being applied (the use of vegetation to stabilize the slopes and prevent soil erosion) needs re-examination, since large portions of the planted vetiver grass have withered, perhaps because of the dry spell. Additional water appears to be required to sustain its growth and stabilize the soil.

Road safety has emerged as an important issue. Since private vehicles now have access to the construction roads, the stretch of road running down the escarpment is frequently used, which slows down vehicle progress. With the widening and paving of the main road to Thakek, construction vehicles run at faster speeds, endangering the lives of children, village residents, and animals that wander onto the road. The clouds of dust left in the wake of vehicles traveling along still unpaved roads pose additional threats to those living and working along the road.

Recommendations

- I. Since the contractors are required to implement the Environmental Management Plan, they need to find a longer-term solution to the overwhelming dust problem than simply watering the soil. The use of salt and other technologies should be explored.*
- II. The Health Program Management Unit of NTPC and the provincial governments with jurisdiction over the project areas should develop a program to monitor the respiratory systems of project affected persons (PAPs) to assess the impact of dust on their health. As stipulated in Section 4, Part 1 of the Concession Agreement, the Company is to carry out a health impact assessment (HIA). This will establish a baseline of existing health conditions in the Project Area, using already available information from existing surveys. Respiratory diseases are identified as one of the environmental health issues by the HIA.*
- III. Compensation packages should be determined in case of negative impacts on health.*
- IV. While a safety culture is strongly entrenched in the construction sites, the same was not observed outside these sites. The risk of pedestrians being hit by construction vehicles can be remedied by the provision of sidewalks or designated walking areas, and the setting up of speed limits. Likewise, road and warning signs in Lao should be put up at strategic points.*
- V. Village-based information, education, and communication (IEC) schemes, featuring campaigns and school training programs for road safety aimed at villagers unaccustomed to passing traffic should be instituted. This could be done in collaboration with specialist International NGOs, like the local chapter of Road Safety International Associates or Handicap International.*

3.2 Resettlement

a. Housing.

The shortage of wood supply has delayed the construction of houses in the resettlement areas, such as those in the new sites of Ban Sop-on and Ban Done villages. Hence, temporary houses were built in anticipation of forthcoming supplies of quality wood. At the request of the Governors of Khammoune and Bolikhamsay Provinces, the Minister of Agriculture and Forestry agreed to allocate the needed timber for the resettlement houses in coordination with the

Village Forestry Association. The VFA is still not operating as envisioned, perhaps because it was created by fiat and thus organizationally weak.

Recommendations

- I. *Closer supervision and training of the Village Forestry Association by the GOL, NTPC and the WB on the management of wood procurement, allocation and distribution for permanent house construction is necessary.*
- II. *Once the permanent houses are built, policy guidelines concerning the continued use and existence of temporary houses need to be formulated by NTPC and the GOL's Resettlement Committee.*

b. Economic and social development in the Nakai Plateau

The IAG was impressed with the conditions in the resettlement villages. Interaction with the resettled villagers yielded the following observations:

- The resettled people appear happy in their current location, saying their houses are much better than before. They are also closer to roads and have improved access to basic services like health and education.
- The women are particularly pleased that water is within easy reach. In their former village, they and their children had to walk several kilometers each day simply to fetch water.
- The education of children is assured since the school is located in the new village.
- Mothers can leave their children in the village nursery so they attend to other work.
- Older persons are more comfortable and have access to health services.
- Child mortality has decreased; with some villages reporting the rate as zero owing to the provision of good health care services.
- Householders have learned to produce crops other than rice, and acquired new farming techniques; this is combined with Project-furnished supplies of fertilizer and water.
- The money that households earn from selling crops and from working as laborers gives them the opportunity to purchase simple farm equipment, such as hand tractors, and for some, consumer items like a motorcycle or television.

The shift from traditional slash and burn farming techniques to subsidized crop cultivation in plots represents a substantial leap from subsistence farming and the traditional way of life the settlers pursued in their original communities. At this stage in resettlement implementation and in compliance with the Concession

Agreement, NTPC provides all the basic support, including housing, water, and food, as well as transition allowances. This is a commitment that will apply until the beneficiaries attain the prescribed Household Income Target.

A noteworthy livelihood program has emerged on the plateau and is currently being implemented with demonstrable progress. The cultivation of cabbage and mushrooms is sustained by the distribution of seeds and seedlings, not only in the resettlement areas but also in some of the old village sites. A land use plan specifying agricultural village boundaries, including drawdown zones, is already in effect. Livestock production and propagation are underway with appropriate safety measures in place, such as animal vaccination. Appropriate training and study tours have exposed selected village members to rural development initiatives elsewhere in the country.

In preparation for the eventual creation of the man-made lake in Nakai following the inundation of the plateau area in 2008, a fisheries development and management program is being set up by the Watershed Management and Protection Authority and targeted for implementation in 2009. The IAG was not able to meet with the Watershed Management Protection Agency (WMPA) officers to discuss this matter formally. The consultation will be scheduled during the 8th mission, on the assumption that the Reservoir Fisheries Development Plan will have been completed by then.

Recommendation

Considering that the reservoir is a man-made lake, the duties and responsibilities of the Watershed Management Protection Agency and The Reservoir Management Authority should be delineated immediately and conceptually harmonized in an integrated lake basin management and development framework.

c. Issues and concerns

Sustainability of livelihood and improvement of the quality of life in the resettlement areas pose major challenges. As stated in the Concession Agreement (CA), during the Resettlement Implementation Period, which is approximately nine years in duration, the income earning capacity of the settlers should be enhanced and the Household Income Target achieved (The criteria are \$820 dollars per household, or the national rural poverty line, whichever is higher in year 5 after relocation; the other best endeavor target sets the average village household income target at \$1200, or the national average rural income, whichever is higher in year 9 after relocation). The responsible parties, GOL, NTPC, and others, must also carry out their mandates in terms of adequate support. Further, the settlers' livelihoods are expected to be restored to a

sustainable level as soon as possible, but no later than five years for Project Affected Persons (PAPs). The latter's restoration of livelihood depends on irrigation from the Project facilities downstream of the Power Station. For all other PAPs, sustainable livelihood programs should begin 18 months from the start of the Project.

The people in the resettlement areas share a new experience of relying for their economic security on project support. In their original villages, their livelihood came from familiar cultivation, hunting and gathering activities in the forest. In the resettlement villages, however, they have to buy many of the items needed for daily consumption. Rice, in particular, has become a commodity, since they purchase rather than grow it. The money they earn from working as laborers or from selling cash crops like cabbage and lettuce is now used to buy rice.

This situation gives many an uneasy feeling of insecurity at not having control over their rice requirements. Stored rice from the previous harvest, ideally geared to last them the entire year counts as their ultimate definition of food security. Although each resettled household is allocated 0.66 hectare of cleared and irrigated land, of which at least 0.16 hectare is developed and can be devoted to paddy production, there is no guarantee it will be put to that use. This is because in its initial growing stages, rice depends heavily on a sufficient water supply and on appropriate types of soil and resources, which may not be readily available.

Thus, although the proposed crop diversification plan has generally proven successful in the pilot villages (relying heavily on fertilizer and water subsidies from NTPC), the settlers' apprehensions remain. While the evidence is largely anecdotal, those who expressed feelings of insecurity referred to their inability to cultivate enough rice for family consumption, coupled with their worries that sales from cabbage or lettuce production may not tide them over the hunger period, as selling bamboo stalks, medicinal herbs, or honey from the forest once did. Moreover, their neophyte status as commercial farmers, unaccustomed to the vagaries of a market economy and having to face eventual weaning from NTPC subsidies, fosters further anxieties.

While planners recognize the difficulties of a transition from forest-dwelling to settled farming, the major change of lifestyle for the resettled population represented by this shift calls for close monitoring. Some settlers will likely thrive in the new commercial economy, but others will face greater challenges in the transformation from slash-and-burn cultivator-hunter-gatherers operating in the self-sufficient mode of a diverse forest ecosystem. Moving by contrast into a new settled agricultural regime growing unfamiliar commercial crops chosen for their monetary rather than consumption value calls for creativity, motivation, and resilience. Trading dependency on the forest, an ecosystem they know, for dependency on a market economy, which they do not know, poses risks. Although the fertilizer, water and food supplies allocated to them by NTPC appear to set them on a viable earning course toward economic gain, these very

subsidies may create long-term dependency and generate a false sense of security about the benefits of commercial farming.

At the same time, it is important to be reminded that many resettled household members value the availability of basic services nearby, the prospect of earning more, their children's having new options for the future, the comfort of a substantial house, and the knowledge that the physical hardships of deriving one's living from a slash and burn ecosystem are behind them. Time and their ability to adapt satisfactorily to the new settled agriculture ecosystem will help them render their judgments.

Recommendations

- I. *The adjustment to important livelihood and lifestyle changes (from slash-and-burn forest cultivator-hunter-gatherers to settled commercial crop farmers) must be closely monitored by the NTPC, WB and GOL hereinafter referred to as the NT2 Team), with appropriate assistance that takes into consideration the complexities of agricultural transformations.*
- II. *Communication with the settlers on the part of the GOL, NTPC, and other officials should make these new farmers very much aware that NTPC's subsidies and support will not last indefinitely. Thus, the settlers need to move toward increasing levels of economic independence at a reasonable but progressive pace. Steps toward a gradual decrease of dependence on the NTPC should be instituted and publicized in consultation with the settler-farmers.*
- III. *Since the development of sustainable livelihoods will likely take more time than originally envisioned, and given the complexity of major transformations in people's lives, attention should be given by the NT2 Team to the possibility that socio-cultural and economic programs may not keep pace with the fast-moving technical components of NT2 operations. Thus, a broader concept of development is needed, anchored not solely on the achievement of income targets, but measured also by quality of life indicators, e.g., health and sanitation, education, housing and other basic services, livelihood, information, and participation. The settlers' own criteria for a better life need to be ascertained and utilized. Also pertinent is the availability of more choices and opportunities, especially for possibly marginalized groups like women, children, youth, elderly, ethnic groups, migrants, and disabled persons.*

- IV. *Assessing sustainability at the household rather than village level allows the identification of those households needing better support in adjusting to new forms of livelihood and changing lifestyles.*
- V. *Adopting new livelihood options does not necessarily imply that people have to abandon their traditions. Enabling settlers to adapt to their new lifestyles can be accomplished through several means. These include literacy and numeracy programs, proper application of fertilizers, new fishing techniques, access to information on prices and price-setting, new weaving patterns, and more. The people themselves can handle integrating their new knowledge and activities into their overall cultural traditions and spiritual perspectives.*

d. The Vietic community: a special case

The Vice Governor of Khammouane and the Manager of the RMU formally conveyed to the IAG their concerns regarding a Vietic community of 18 to 20 households in Ban Sop Hia. The community members, headed by a strong woman leader, insist that they do not want to be resettled in the Project village but rather wish to remain in a relocation site near their spirit territory. The GOL is inclined to agree to the community's suggested site, which is situated between the biodiversity corridor of the protected area and the intended resettlement village. However, the RMU expressed some apprehension that if the Vietic community did remain on that preferred site, they might not be entitled to compensation packages, since the minimum threshold for the provision of basic services is 50 households.

Recommendations

- I. *The IAG commends the GOL for its flexibility and understanding in allowing the Vietic community to select a site more compatible with its cultural perspectives. As regards compensation, the CA has a specific provision which states that special measures will be applied as required towards ethnic minorities and vulnerable persons to take care of their particular needs, foster self-reliance, and improve their socio-economic status. The IAG believes this provision applies to the Vietic community, entitling them to compensation packages, regardless of the number of households.*
- II. *A good communicator with knowledge of the Vietic language and culture should be assigned to facilitate the flow of information among the parties concerned. Capacity-building and community organizing should also be encouraged so that the Vietic community members can assess for themselves the kinds of information they receive from a*

range of people and institutions, and the types of action best suited to themselves.

The Vietic community should decide what basic services they consider appropriate in the context of their culture. If, for example, the Vietic people appear reluctant to have electricity installed in their chosen resettlement area for now, this should be considered by the Project planners. The expert advice of a cultural anthropologist, sociologist, or community development specialist will be helpful here. At the same time, care should be taken that such decisions represent the thinking of large numbers of the community rather than only a few leaders, and that any marginalized groups, in the community, possibly women, youth, or disabled, are not left out of the decision-making process.

3.3 Downstream program (DSP)

NTPC completed the downstream restoration program in October 2006 and issued the implementation manual a month later. Both incorporate the results of hydraulic studies predicting the extent and quantification of possible negative impacts on the main livelihoods (fisheries, crop production and livestock raising). These potential threats have surfaced because of the trans-basin transfer of water from the dam, leading to increased water volume and flow of the Xe Bang Fai (XBF) River.

The average annual loss of livelihood per household is estimated at about 2.2 million kip (\$206), while annual losses in the riparian villages may be higher at 2.9 million kip (\$270) per household. In the hinterland villages, which are less affected by floods, the losses are likely to average 1.1 million kip (\$100.00) per household. Other significant impacts include the loss of land and other assets from riverbank erosion. Similarly worrisome is the anticipated deterioration in the water quality of the XBF River, on which the villagers depend for domestic use.

Some negative impacts are deemed inevitable. The downstream restoration program has focused on measures to offset the losses arising from the discharge of water from the Powerhouse to the XBF. Opportunities for better irrigation utilizing the excess volume of water form part of downstream planning. The Livelihood and Asset Restoration Program, with its built-in Livelihood Restoration Fund, is designed to revitalize the livelihoods of PAP's to reach at least the same level as before the Commercial Operation Date (COD). This commitment was already being implemented at the time of the IAG's 7th mission. Funds have been earmarked for several initiatives: (1) micro-credit (2) infrastructure including water supply, flood control and water gates, (3) seed farms at district level, and (4) software linked to demonstration pilot systems and training.

Satisfactorily defined are the operational processes and institutional set-up being developed by those implementing the Downstream Program – from the GOL and NTPC, to the village level stakeholders. NTPC is already operating the Downstream Program from its office in Thakek, with impressive outcomes beginning in 2006 and continuing up to the IAG's visit in February 2007. These achievements may be attributed to a substantial degree to the active involvement of experienced Lao staff. Village Development Coordinating Committees (VDCC) and Village Savings Funds (VSF) are in place in all 20 villages. Many settler households have participated in livelihood training opportunities and are engaging in livestock raising and crop production, in addition to rice growing, handicraft and trading.

The GOL, in particular the Provincial Government of Khammouanne, explained to the IAG that they wanted more open communication with the NTPC so as to have a better overall understanding of the entire Downstream Program. Since only weekly plans were being communicated to them, they felt this might undermine the long-term engagement of the Government and the Lao people in regard to implementing the DSP. It was noted that the RMU shares a responsibility for communicating in timely fashion crucial elements of the Program to downstream PAPs.

Recommendations

- I. The GOL, especially in the Provincial level, must be included in the daily information loop that features developments in the Downstream Program. By having a complete picture, they can participate more actively and effectively, not only in the DSP review but also in the implementation, monitoring and performance evaluation of the DSP.*
- II. There is a need for regular and detailed evaluation of the various alternative livelihood schemes set in motion to offset reduced income attributable to the increased water level of the Xe Bang Fai River. Careful examination of outcomes will allow fine-tuning and identification of more viable options in the event of failure.*
- III. Information on the DSP and the Manual itself should be translated into Lao for improved communication and action on the part of the GOL and the Lao people who, ultimately, will be the implementers.*
- IV. The World Bank should augment its technical staff in Vientiane with experts in agriculture and fisheries to guide and support livelihood activities in both the downstream areas and in the plateau*

3.3.1. Pilot-testing and scaling-up of livelihood options

a. Crop production

The demonstration farms for the cultivation of cash-crops, such as peanuts, cabbage, tomato and watermelon, showed positive results. In 20 downstream villages, 674 households were emulating dry season crop cultivation. However, only 75 households were producing wet season rice, and fewer still, 16 households, were growing other wet season crops.

Some of the participating households that were interviewed expressed a preference for receiving their farm subsidies in kind rather than cash, that is, fertilizer instead of the money to buy the fertilizer. Again, the reasons were not ascertained. Yet, one might speculate that cash is more easily diverted to other purposes, ranging from consumer purchases to loans to relatives, or receiving fertilizer directly may be more efficient and less time-consuming for the householder. A third hypothesis might be that the settlers feel less vulnerable if the fertilizer is turned over directly, thereby allowing them to avoid being cheated when they purchase fertilizer. These educated guesses need to be backed up by harder evidence, however.

Receiving subsidies in kind rather than cash may seem favorable to the farmers initially. But part of the package is to train them to handle cash and record their expenses, earnings, and profits from commercial crop cultivation.

b. Livestock raising

The NTPC's Downstream Program reports that there are 143 households engaged in hog raising compared to 98 households in fishpond culture. This difference may reflect the farmers' recognition of lower risks or greater experience with hog raising. Livestock growing apparently appears more manageable than fish culture. However, liquid and solid wastes generated by pigpens require careful management in terms of their high biochemical oxygen demand (BOD).

Some of the villagers told the IAG they wanted to raise cattle instead of pigs. As with rice banking, owning cattle traditionally represents financial security through substantial imputed savings and ready sales should the household suddenly need cash.

Recommendations

- I. The desire to raise cattle and perhaps other kinds of livestock, either as a savings strategy or for commercial gain, should be addressed.*

Veterinary services will be needed, together with sound business management training if farmers want to move into commercial operations. Testing livelihood options with farmers well ahead of the COD offers NTPC and GOL a chance to find the most suitable alternative livelihoods for the affected households.

- II. Systematic handling of solid and liquid livestock wastes should be widely initiated, especially since they are good sources of biogas. A cluster of pig-raising households could share a common biogas digester and use the resulting methane gas for their daily cooking fuel requirements.*
- III. In the longer term, since commercial feed for livestock as well as for pond fish can be locally produced, training schemes should be developed that enable village entrepreneurs to profit from this business opportunity.*

c. Aquaculture Fisheries

As the NTPC has pointed out, the fish yield from the Xe Bang Fai will likely be reduced by 58% in the coming dry season, and by 36% in the wet season. This represents a significant income drop, especially for those households relying solely on fishing for their livelihood. To offset the loss, intensive two-cycle aquaculture and rice-fish culture is being introduced. This innovation requires supplemental feeding, quality fingerlings, and good management to maintain appropriate stocking density. For polyculture operations, care is needed in the mix of fish species to avoid food competition and predation. Experience in other Southeast Asian countries indicates that while aquaculture in earthen ponds and lakes is a high risk venture, it is also very profitable if managed well. Another critical feature is being free of natural calamities like typhoons, which can cause the flooding of aquaculture ponds and the corresponding release of fish stocks into the surrounding farming area.

A case in Phonva village brought the issue of rice-fish culture farms prominently before the IAG. The farmer borrowed 1,000,000 kip (US\$100.00) from the village saving fund as capital to operate what was widely understood to be a pilot venture in fishpond cultivation. To the farmer's dismay, more than half the fingerlings he purchased died only a day after their release into the pond. Without any technician to explain why this had happened, the IAG could only surmise that the fingerlings could have been damaged en route, or that the farmer may not have properly applied the correct amount of feed or feeding techniques. The farmer expressed his great worry to the IAG as to how he would be able to repay the loan. Not only would he now be in debt; he would also have to experience the shame of losing his honor as a pioneering farmer-leader. The experience may well serve to discourage other enterprising farmers from trying out new

aquaculture ventures if they are not assured of some kind of compensation in the event of loss.

Recommendations

- I. *Appropriate training in aquaculture operation and management with technical support readily available from aquaculture experts during actual operations is necessary.*
- II. *Interested farmers should understand the risks involved and should be taught how to minimize them, e.g. proper stocking for appropriate fish density and in the case of polyculture, combining the appropriate fish species.*
- III. *Make provision in the livelihood restoration fund for remedial actions in case of failures, e.g. providing additional funding support for taking a second chance with this livelihood option. Crop insurance mechanisms might also be applied.*

3.3.2. Opportunities for women: weaving and handicrafts

In community discussions with the IAG, village women emphasized that they wanted to learn how to weave and engage seriously in crafts production. Although weaving was not a traditional skill in their village, they articulated several reasons for their interest in this activity:

- *they can do it at home while taking care of their children*
- *they can turn to weaving whenever they are free of household chores*
- *they find weaving to be a relaxing activity*
- *they gain a sense of satisfaction in expressing their artistic talent*
- *they can improve their skills and capacities, master the craft, and become entrepreneurs; in the process, they will gain in self-confidence and self-esteem, and perhaps increase their standing in the household through their earnings*
- *they can earn money (which would remain under their control) and experience greater financial security*

Some women had already started weaving and showed their finished lengths of woven cloth to IAG members. A few had ventured into more enterprising modes by making bags and secondary products out of their woven cloth. From the initial fund provided by the NTPC and additional support from the WB through the Community Connections Fund, the obvious livelihood opportunities generated have attracted more women to learn the craft. Selling their woven products, however, posed continuing problems.

How to access the village revolving fund (VRF) for weaving was a concern aired by the women. They pointed out that generally, it was the husband who borrowed from the VDF, and if the husband already had a loan, his wife was not entitled to borrow. An additional worry expressed by the women was that even if they did borrow from the VDF, because housework or child care took precedence over continuous weaving for product sales, they might not be able to repay the loan on time.

Recommendations

- I. *In addition to the NTPC and the WB, the Lao Women's Union (LWU), which is equivalent to a ministry in the GOL's political structure, is eminently qualified to take on this earning challenge. Supported by a number of bilateral donors, it is already heavily engaged in micro-credit, handicraft training and marketing schemes nationally and internationally for women's income generation and overall development. Its representatives in the downstream area have indicated to the IAG their great interest in and capacity for helping local women, provided they receive the necessary financial and technical support to do so.*
- II. *The GOL through the Village Development and Coordinating Committee (VDCC) in Thakek informed the IAG that it was creating the opportunity for both husband and wife to access the VRF as one household, even if they proposed separate projects for funding. In such cases, both spouses would undergo training in how to prepare a joint business plan as a prerequisite for obtaining a VRF household loan*
- III. *The LWU's advocacy in favor of women's empowerment and greater equality with their husbands through increased earning and managerial skills should also be supported.*
- IV. *GOL, NTSP, and LWU should explore the viability of the "one town, one product" (OTOP) concept, in which each village or district specializes in a particular design, weaving material, or finished product, such as bags, table cloths and table runners, mobile phone holders, etc. The communities should, however, be involved in the decision-making process, especially the prospective women weavers and their households.*

3.3.3. Monitoring of impact and evaluation of the DSP

The DSP Final Report includes an estimation and evaluation of hazards from the increased flooding and stream bank erosion caused by the discharges from the

power plant. A very important component of the operating rules for NT2 diversion concerns the release of water from the power plant so as to avoid increased over-bank flooding along the upper and lower Xe Bang Fai.

Even with detailed engineering analysis and design, uncertainty about the impact of water flows downstream remains. It is conceivable that once the NT2 Hydropower plant starts operating, its effects may extend even beyond the identified impact areas. Thus, not only is intensive monitoring needed to ascertain as closely as possible the extent and degree of impact, and the effects on livelihood, property, drinking water, etc. Equally crucial is a rapid feedback communication system to generate action at all levels that can promptly address threats or avoid them altogether.

Regarding the broader monitoring structure for livelihood development projects described to the IAG in Thakek, the scheme was all the more impressive because the work program and accomplishments were presented by the Lao DSP staff. This was a clear manifestation of capacity building through “learning by doing.” According to the DSP Report, an independent monitor would be on board by June 2007 to review the data on the performance of villagers and their income recovery over a period of five years.

Recommendations

- I. *The World Bank and other monitoring entities should ensure that the performance monitoring of the entire downstream program extends beyond the pilot villages for possible residual impacts in neighboring areas. NTPC should allocate funds for the mitigation of these residual impacts and for the compensation of affected people. There is also a need to differentiate the monitoring and evaluation activities for residual impacts from compensation benefits.*
- II. *Beyond compensation and off-setting losses from the transbasin transfer of water to the XBF River, the Project should develop criteria to assess the quality of life and general well-being of the villagers. Skills training assessment should include the cascading effect on the household and on the community.*
- III. *Funds should be programmed to mitigate compensation requirements from unidentified effects that may emerge during the operation of NT2 and the release of excess water into the XBF River.*
- IV. *Participatory monitoring should be promoted, drawing on the community-oriented skills of NGO's with the requisite expertise applied to environmental, social and economic impacts.*

- V. *As a member of the Mekong River Commission, the GOL should solicit the active participation of the MRC especially in the assessment of the Downstream Support Program and the impact of releasing water into the Mekong River, especially on the fish population.*

3.3.4. Use of excess water for domestic use and irrigation

Scarcity of water is one of the problems brought to the attention of the IAG by the villagers, especially in the areas of the powerhouse and the downstream channel. At present villagers along the XBF River use motorized pumps to bring water to their rice fields and vegetable plantations. People boil the water from the river for drinking while some rely on the filtering capacity of the sand in the riverbank to get clear water for drinking. Women and children do most of the water collecting for household use. The project will release an enormous volume of water into the XBF River which the GOL should tap for irrigation to ensure a year round supply of water for downstream farmers and increase the length of the cropping period.

The downstream program's Water, Sanitation and Hygiene (WASH) Component makes provision for at least one source of potable water for households, The current system (bore-hole with hand pump, electric pump and storage tank or electric pump and distribution system at public standpipes) serves 200 people and one or two community wells in all riparian villages. This will enable villagers to use their currently available electric pumps to bring water directly from wells to their storage containers at home, or simply identify extra sources of easily available water to replace the use of XBF water.

Before the irrigation component can be finalized, NTPC has set up certain conditions that require commitment both from the Provincial Government and the villagers, before irrigation can be implemented. As stipulated in the DSP Final Report:

- The Provincial Government must be prepared to let farmers choose the crops they want to plant under irrigation.
- Farmers must form water users associations to operate the irrigation schemes.
- Water users organizations must be involved in the construction of irrigation facilities. The FAO model of participatory irrigation construction merits emulation.
- Water user organizations should be set up and water use charges should be collected for funding the operation and maintenance of the systems.

Recommendations

- I. *The GOL through the representatives of the Ministry of Irrigation and the Ministry of Agriculture in the Provincial Government should link closely with NTPC in working out a concrete plan for the provision of irrigation water.*
- II. *Likewise, the conditions proposed by NTPC should be communicated clearly to and discussed in a participatory mode with the farmers, since it also requires them to assume responsibility for the construction and operation of the irrigation system.*
- III. *The Provincial Government, with the possible assistance of the World Bank and qualified NGOs, should take the initiative to organize farmers into water users associations, with women figuring prominently among the members. Water pricing study should be done with technical assistance from the World Bank. The schedule should have enough lead-time for the construction of the necessary infrastructure before the operation of the NT2.*
- IV. *The World Bank can assist the GOL in monitoring the progress of activities so that results can emerge in timely fashion before the release of excess water from the Power Station.*

4. ENVIRONMENTAL ISSUES

4.1. Dust pollution

The hazards from clouds of dust in the construction areas and roadways have already been raised but are also pertinent here (see section 3.1 and the corresponding recommendations).

4.2. Biomass clearing in the plateau

Salvage logging in the plateau involves the removal of commercially viable logs, leaving a significant amount of biomass to be submerged upon inundation. NTPC has commissioned a study to address pressing and valid concerns on the allowable amount of biomass that can remain on the plateau without negatively affecting the water quality. This includes a cost-benefit analysis that will explicitly weigh the advantages and disadvantages of removing the biomass.

The GOL has established a Salvage Logging Committee to oversee this activity. The Environmental Management Unit (EMU) at Khammoune was tasked to look

into the logging roads, logging boundaries and the salvage logging areas. As mentioned during the meeting with the Vice Governor of Khammoune and the Manager of the RMU, the EMU has reported certain violations of the logging contractor, such as the disposal of used oil on site and the failure to collect all the debris and cut wood in the area. However, the IAG was not informed whether any action had been taken on the reported violation.

Recommendations

- I. *The results of the NTPC's biomass study are needed for an informed decision on the issue. It is the IAG's view, however, that removing all the biomass is expensive and time-consuming and would have its own negative impacts. Rather, It would be more effective and practical to remove the biomass only in specific areas that the on-going study can identify.*
- II. *The Salvage Logging Committee, with strong support from the Provincial Government, should closely supervise the activities of the contractors. The protocol for reporting violations by the EMU should be firmly in place so that higher authorities, like the Governor or the Minister of Forestry, can act judiciously on such violations.*

4.2. Biodiversity conservation and the Asian elephant study

Although the IAG's exposure to this issue during the 7th mission was limited, it was able to meet with the Wildlife Conservation Society (WCS) and received a good briefing. NTPC must be credited for supporting the Asian elephant study, which is being done not only for scientific purposes but also to address biodiversity concerns in the protected area through capacity building and biodiversity assessment. Monitoring human-elephant conflict and the development of techniques to keep elephants off the properties and farms of the villages are on going. WCS is currently training some Lao university students in wildlife management,

Recommendations

- I. *The GOL through the Ministry of Education, should encourage and promote on-the-job wildlife management training for university seniors and graduate students. Thus, budding scientists can gain practical experience as interns with international NGO's engaged in wildlife activities.*

- II. *WMPA, for example, can provide formal and practical training opportunities to young professionals, thereby contributing to forming Lao expertise in wildlife management that will apply not only for the Nakai protected area but to the entire country.*

4.3 Waste management

With increasing numbers of settlers moving into their new villages comes the accumulation of solid waste. The RMU has already called attention to this emerging problem and requested NTPC to put up a solid waste management facility not only for its own workers and the Project staff compound but for the resettled villagers as well.

Recommendation.

It is not too early to begin advocating the three R's (reduce, re-use, recycle) in the resettlement areas. Training in solid waste management should already be in the pipeline of training packages being developed by NTPC with the participation of the GOL's Environmental Management Unit.

5. SOCIO-CULTURAL ISSUES

Despite the new and more comfortable living arrangements in the resettlement villages, the people are faced with some formidable challenges in adapting to a very different lifestyle. They struggle to maintain the cohesiveness of the family, the integrity of their culture, and some control over their still unfamiliar new livelihood strategies. Posing an inherent threat is the risk of continuing dependency on the compensation and training packages of NTPC, instead of learning to operate independently for greater self-sustainability. Moreover, they compare and have to contend with differing compensation packages in the plateau, the project lands, and the downstream areas.

NTPC has developed a Living Standard Monitoring Survey to determine how people are doing with their lives and livelihood. It also offers insights into their perceptions, giving staff a better sense of what people think about their present condition. To the credit of NTPC, the survey questions are comprehensive and designed to generate information that will enable them to assess progress in levels of living, or lack of it. Each family keeps a record book of the money that goes in and out, including the purchase of farm implements like hand tractors or consumer items like motorbikes. These items have become symbols of improvement in their living standards. It should be noted, however, that they

cater mainly to male users. The benefits accorded to women from improved household levels of living also bear investigation.

Many other socio-cultural concerns emerged, which are discussed and integrated into other sections of this report.

Recommendations

- I. As the detailed survey questions on, for example, food consumption or meetings attended over the past three or 12 months, can be difficult for the villagers to recall, NTPC needs to inform them beforehand of the data sought, so the villagers can record the information as it emerges.*
- II. Good facilitators, preferably Lao who speak the language of the villagers and who understand the local culture, are needed to communicate the meaning of the questions and receive objective responses.*
- III. The World Bank's Social Safeguards Team as well as the RMU need to review the structure and questions of the survey and get feedback from the respondents as to their understanding of the aims of the survey. This will enable NTPC to fine-tune the instrument toward maximum effect in terms of objectivity and usefulness.*

6. PARTICIPATION AND INVOLVEMENT OF CIVIL SOCIETY AND NON-PROFIT ASSOCIATIONS (NPAs)

The International NGOs (INGO) are collaborating effectively with the GOL in programs of poverty reduction, with a focus on poor, isolated and vulnerable groups; environmental sustainability; people's participation, and capacity development. The INGO statement made at the Joint Roundtable Meeting with government in Vientiane in November 2006, outlines INGO commitments and make useful suggestions for programs in education, health, agriculture, rural development, natural resource management, unexploded ordinances (UXOs), and governance. It is laudable that most of their staff members are Lao professionals who are able to link development initiatives with people's needs and preferences.

Several Lao Non-Profit Associations (NPAs) with specific aims in health, resource management, and other socio-economic concerns have emerged on the local scene. Working closely with government units carrying out related programs, these groups of enthusiastic young Lao men and women show excellent potential for enriching programs that link communities effectively with

government development programs. Their members can and do contribute significantly to the development of the Lao people in ways responsive to the society's own unique culture and history.

Recommendations

- I. *The WB, GOL and NTPC should continue and enhance the productive dialogue with International NGOs, drawing extensively on the latter to help improve multi-stakeholder processes, people's participation and claim-making, and strengthen government capacities to carry out programs that are transparent, responsive, and accountable to the citizenry of the Lao PDR.*

- II. *The GOL should encourage the participation of emerging Lao Non Profit Associations (NPAs). Fostering the organization of Lao civil society groups, or NPAs, working effectively with poor, vulnerable and isolated citizens will multiply committed development partners on the ground, and address the need for local-specific and culturally relevant information and activities that are crucial to successful community initiatives.*

7. COMMUNICATION AND INFORMATION

Access to information by villagers depends to a significant degree on their literacy and level of understanding. Also pertinent is how the information is disseminated from the source to the recipient. A concrete case surfaced during the IAG's consultation meeting with the people of Ban Lao Na Ngam Village at Gnommalath district This is one of the communities affected by the construction of the downstream channel and the regulating pond.

Community members expressed to the IAG their confusion and dissatisfaction with the way in which compensation for the loss of their land and harvest was being implemented. Some farmers felt that NTPC was unfair because other farmers got a better deal even if they are from the same area. The government official in charge explained that compensation is based on the type or value of crop and percentage loss of crops. This clarification did not satisfy the group, however, which protested that some of them received less than others although they apparently shared similar situations. Nor did they have any idea when the complete compensation package would be forthcoming. They did take the opportunity of talking with the IAG to reiterate their desire to have an improved water supply in the near future, since they depend exclusively on wells that dry up in the summer.

Not to be ignored is the risk of dependency by the project affected persons on the compensation coming from the project. Much as the necessary safeguards are considered in the over-all plan, there is still uncertainty as to how people will adapt once the support is stopped. This is where communication, information and community organizing become crucial. People usually want to know the details in advance because it will affect them and their livelihood. Moreover, they need to understand how to organize to communicate their priorities and take action.

Finally, people need time to discuss critical issues affecting them as new settlers. Doing so will enhance their situations and help them mature into full citizens. It is customary among the Lao to discuss problems and issues within the clan or village, which in turn enables them to decide what actions to take, who will take them, when, and why. This is where community organizers and facilitators especially can help with the reflection and decision-making process.

Recommendations

- I. *IEC and community organizing are crucial for helping people clarify the issues affecting them and for developing confidence about the challenges they face aside from the vertical flow of information from NTPC, GOL, World Bank, ADB, etc., the horizontal flow of communication among the villagers along with training in community organizing should also be facilitated.*
- II. *NGOs and their local Lao equivalents can contribute significantly to these community-building processes. Academic social scientists who have done research on communities and local level processes should also be effectively brought in.*
- III. *It would be useful to bring Lao facilitators who can manage the direct engagement with villagers and who are articulate enough to explain and gauge if the information being conveyed is clearly understood by both the villagers and the project staff. Enhancing awareness and the capacity for action are keys to helping people engage in the process of arriving at a solution.*
- IV. *Frequent dialogue is needed to avoid miscommunication between project staff and villagers. There is also a need to follow up with the villagers, give them regular feedback, and in the process develop trust between and among the different institutions.*
- V. *The details behind the compensation schemes should be communicated clearly to the people -men and women- by NTPC and the GOL, and from the GOL to the project affected persons. The procedure needs to be explained, including the involvement of the local*

government especially in the disbursement of funds for compensation. In this regard, more can be done in communicating with the villagers using both traditional and modern methods of communication.

8. CAPACITY BUILDING AND EDUCATION

The level of expertise and education of the Ministers of the GOL and their key staff as well as those of the other major government institutions involved in the NT2 Project are impressive. However, the number of well-trained staff pales in comparison to the enormous tasks ahead to ensure that the NT2 Hydropower Project can drive forward the growth and development of Lao PDR and the Lao people. At the provincial, district and village levels, the capacity of local officials is gradually being developed to enable them to perform their new tasks under the NT2 project.

The 6th IAG Mission Report stressed that there is a need to put in place a comprehensive capacity building program to ensure that Lao citizens gain the capacity to run the NT2 by themselves in the near future, side by side with institutional development and strengthening. A quick way to determine the gap in professional capacity is to draw up a list of international consultants already serving the project. This in a way reflects the shortage of such expertise in the country.

As already pointed out, WCS has among its staff Lao university students who are engaged in wildlife science and conservation work. This makes for good preparatory training, not only for the NT2 Hydropower Project concerns but for the entire country as well.

In this mission, the IAG gave more attention to capacity development of the people in the project areas as a result of closer interaction with the PAP's during the project site visit.

8.1 Opportunities for the youth

The social and economic benefits that are integrated into the resettlement and compensation packages have opened up better opportunities for the education of the youth among the PAP's. Elementary schools in the resettlement areas have made education more accessible to children. Their presence serves as a stimulus to parents to send their children to school, unlike in their old villages, where distance was a factor in undermining school attendance. In slash and burn farming, children had to help their parents with various tasks, and if they took too long going back and forth to school, this was taking valuable time from their household work.

Some of the young people present during the meetings emphasized their desire to pursue higher education in business, teaching, and medicine, so they can be of help to their community. While their parents are generally supportive, they also fear that their children will not return once they savor the enticements of Vientiane and other cities. Hence, parents hope the project will bring on-site work opportunities for their adult children.

Recommendations

- I. With the collaboration of parents and teachers, the GOL should take what steps it can to ensure that every child of school age is in school and remains in school until graduation by monitoring drop-outs and encouraging them to return to school and facilitating attendance at the nearest high school.*
- II. The GOL should organize credit and training programs in income generation activities, especially for out of school youth (men and women) and institute tutoring programs for those falling behind.*
- III. The GOL should ensure that part of its Poverty Reduction Fund is allocated to establishing schools for secondary and even tertiary level education that are reasonably accessible to the young adults in the villages. Scholarship grants should also be made available to deserving students and should be allocated equitably among the provinces, with priority to the poorest ones.*

8.2 Opportunities for women and the elderly

An integral part of the NT2 Project design addresses gender concerns. NTPC has exerted considerable effort toward gender-mainstreaming under the Gender Strategy and Action Plan. The parallel effort of the GOL should also be given due recognition. The creation of a Committee for the Advancement of Women has been created in recognition of women's increasing roles in the society and in the government. In the case of job promotion, for example, all things being equal, the GOL is expected to give priority to women.

The Lao Women's Union involvement in the NT2 project is evident at the provincial and district levels, where empowerment of the members is promoted through micro-credit facilities and livelihood projects. In terms of education, the IAG learned that men are more literate than women. Preference is also given to the head of the family to avail of the Village Development Fund.

One striking observation by the IAG is the seeming lack of suitable programs for the elderly or disabled in the project-affected areas. A significant number of

senior citizens, especially in the downstream areas, remain actively involved in their farms. But there is a need to open other opportunities for them in preparation for their having to relinquish rigorous cultivation tasks in the near future. The same mandate applies to disabled men and women.

Recommendations

- I. *Skills training centers should also be established in the villages to provide better opportunities to women. Weaving has been mentioned as attracting special interest, while food processing and sale also offer new opportunities. With these skills should come marketing knowledge.*
- II. *A training needs assessment, with ample support from NTPC and the World Bank, should be conducted with priority to the demands relative to the future turnover and operation of the NT2 Hydropower plant by Lao citizens. Priority should be given to the three provinces hosting the Project, e.g. Khammoune, Bolikhamsay and Savvanakhet.*
- III. *The LWU in the district and village members should be encouraged and supported to be more active in communicating the needs of the women in the villages to the LWU headquarters in Vientiane, which in turn brings the information matter to the attention of the GOL. Not all of these concerns should fall on the shoulders of NTPC.*
- IV. *The World Bank, through the Lao Environment and Social Project (LEnS), should take a more active role in helping the GOL market the opportunities for capacity development in the field of natural resource management, social engineering, and other related fields that would prepare the students for future hydropower or other development projects, not only in Vientiane but in the other provinces.*
- V. *The World Bank and the GoL should seriously consider establishing an adult literacy program in the villages, which would be convenient for interested older persons and adults to join.*

9. PROJECT MONITORING AND EVALUATION

During the 6th IAG mission in 2006, which is the first oversight mission on the implementation of NT2, the NTPC has expressed its concern on the number of internal, external and independent review missions that have hindered their work.

Thus, the IAG advised the NTPC, GOL and the World Bank to agree on a structured and programmed external and internal monitoring plan that minimizes monthly (dry season) visits.

Since the financial close of the NT2 in June 2005 until this mission of the IAG, which spans 639 working days, there have been 354 days (55%) of external monitoring, which by any standard is very intensive. This degree of scrutiny reflects how crucial the Project is to the financial institutions and investors, leaving no room for failure. It does not seem possible either to reduce the number of monitoring groups because of the legal agreements behind the Project, or to reduce the number of monitoring visits in the project areas, due to their importance in identifying problems and coming out with timely solutions. The challenge is therefore how to make these monitoring activities more efficient.

The World Bank has twice-revised a structured program of supervision by the IFIs and lenders with inputs from the IAG, the POE, NTPC and the WB staff assigned to conduct supervision mission. The program of visits has been finalized until the end of 2007.

Recommendations

- I. NT2 has fixed realities in so far as the Concession Agreement is concerned, thus there is a need to work within its bounds. For the different monitoring activities to be efficient, better coordination of the monitoring visits should be done. Some can be scheduled simultaneously rather than consecutively.*
- II. The World Bank should play an active role in consolidating and synthesizing all the recommendations and solutions to certain issues and concerns, like those given by the IAG and POE, the IFIs, etc. and monitor on the follow-up actions by the institutions concerned.*
- III. NTPC has started looking deeply into this concern and has come out with a NT2 monitoring framework taking into account the 5 different layers of monitoring by the internal, external and independent monitors. It would be best for the World Bank and the GOL to consider and come out with a harmonized solution to address the issue.*
- IV. The problems that surfaced from this intensive monitoring can be a deterrent for adopting the NT2 approach for sustainable hydropower development in the country. This should be part of the lessons learned from the Project, so that in future projects, the financial arrangements can be simplified and that the multi-purpose monitoring can be planned well to maximize the time and effort of everyone concerned.*

- V. *The World Bank should publish the monitoring and review mission reports in Lao for better understanding and appreciation of the Lao people.*
- VI. *The actions of the World Bank, GOL and NTPC on the recommendations of the IAG, especially those concerning the PAP's should be disseminated so if the PAP's are visited in the next mission, they would know that something was done or cannot be done due to valid reasons.*

10. FINANCIAL MANAGEMENT

As part of its undertakings to the development partners on the Nam Theun 2 (NT2) project, the Government of Laos (GOL) has to demonstrate that it has spent an additional amount in its budget equivalent to net NT2 revenues in a way that will have a “significant and verifiable impact” on poverty reduction. The Government therefore has to identify public programs of most benefit to the poor; budget for increased outputs from those programs; and execute the budget in a way that ensures that program objectives are achieved.

It is now less than three years until NT2 starts selling electricity and revenues start to flow to the GOL. The Revenue Management Arrangements (RMA) for use of net NT2 revenues, agreed to by the GOL, provide that NT2 funds will not be released for the government budget unless it can show among other things that it has financial management systems in place of sufficient quality to assure that the revenues will in fact result in increased services of benefit to the poor. Significant improvements to GOL financial management will be required if the GOL is able to meet these undertakings. However we would urge that the partners to the agreement be prepared to be flexible. They should recognize that these improvements are a long and complex process and give due weight to intentions and commitments.

In its National Social and Economic Development Plan for 2006-10 (NSED), the GOL is clear on the main priorities for additional pro-poor spending, in education, health, rural infrastructure and agriculture. To turn these general objectives into specific spending plans however requires development of sector-wide strategies and then a close integration with the GOL budget process. Progress on developing sectoral plans is variable amongst the four line Ministries involved. The Committee on Planning Investment (CPI), given that it has a commendable focus to the poorest districts and participatory decision-making, seems to be continuing with a bottoms-up, project-based approach. There are clear advantages to a participatory basis for project selection but there is a risk that specific eligible programs will be project-based without proper consideration of their relative priority in relation to the government's long-term development goals

or their sustainability, particularly in terms of recurrent costs. We support the efforts of the GOL and the World Bank to ensure that budgeting decisions, and particularly selection of eligible pro-poor programs, are made in the context of sector strategies. Stakeholder consultation is essential, but should be undertaken within a set of broad plan objectives, targets for expenditure (capital plus recurrent) and consistent criteria for project selection.

Significant improvements are also required in the GOL's ability to implement its budgets if the other essential requirements are to be realized. An ambitious program of improvement to public financial management – the Public Expenditure Management Strengthening Program (PEMSP) – is underway. The program is not driven by NT2 RMA requirements but by the wider objectives of the GOL for improving its financial management.

Both for the RMA and for wider reasons, the GOL should concentrate its efforts first on achieving the essentials of good financial control, reporting and monitoring. The important contributing elements of the PEMSP include moving towards a single integrated Financial Management Information System (FMIS) with fully automated processing of receipts and payments; as far as possible eliminating cash transactions within the boundary of the public accounts; a new Chart of Accounts to enable identification of expenditure by output and location; and basing budget planning on the output classifications; and effective external financial and systems auditing.

The RMA also require that the GOL must identify not only that it has budgeted for additional expenditure on pro-poor programs, but also that this additional spending will result in an increase in quantity and quality of actual services or outputs delivered. The GOL is also required to evaluate the effects of these enhanced services, to demonstrate better outcomes for the poor. At the very least this will require that some basic measures of services delivered such as children in classes, treatments in clinics, km of roads improved and maintained are available and maintained to an auditable standard. These indicators must be maintained on a detailed (probably district) level as a proxy for indicators of the pro-poor impact of the services. More sophisticated outcome measures however are probably a longer-term project, although the GOL should plan for periodic evaluations of improved outcomes.

Most of the significant pro-poor programs in the GOL are delivered at the provincial and district level. The RMA will come into effect in the context of a very significant rearrangement of central-local fiscal relations. The new Budget Law and Decree will at the same time centralize revenue collection, give provinces the responsibility for developing their budgets within national norms and guidelines, and strongly centralize control of budget execution and payments in the national Treasury. A complex system is being developed of revenue sharing and expenditure grants with equalization payments for the poorer provinces and earmarking of specific program allocations. To ensure alignment of provincial

budgets with national objectives, a new system of budget norms must be developed. New systems of accounting and control at the provincial level, the collection of non-financial performance information, and the ability of the centre to audit provincial and district financial and non-financial performance are critical to the new system. This will require a major strengthening to support these changes. All these requirements are important for the RMA as well.

Strengthening national audit through the State Audit Office (SAO) is also important. The shift of the SAO out of the Prime Minister's office to report to the National Assembly is potentially a significant step in public governance in Laos. The Auditor-General is clear that this will enable him to report directly to the people of Laos. The priorities for the SAO are to strengthen its capabilities in financial audit as an integral element of the overall PEMSP, but in the longer term its capacity to report on the quality of execution of the budget and non-financial as well as financial performance could be an important element of accountability in the GOL.

The Auditor-General believes that the SAO should have responsibility for auditing the NTPC, given his mandate covering all use of public funds. It would be a major task for his staff to take on to audit the project itself, but we agree that, once the revenues start flowing, the ability of the SAO to supervise audits of the company would be a significant element of the RMA. Actual detailed audit could be undertaken by the company's auditors, but under the overall control of the SAO and with the participation of SAO staff. Preparing the SAO for this role should be taken into account in the forthcoming International Organization of Supreme Audit Institutions (INTOSAI) peer review of the organization.

The PEMSP is comprehensive and achieving the required improvements will significantly tax the administrative capabilities of the GOL. We are impressed by the capability and dedication of the senior officials in the Ministry of Finance and at provincial levels but they all acknowledge the very limited professional expertise of financial staff in general. Strengthening capabilities in financial management to the required extent will require a consistent effort over a period of five to ten years. (The same is probably true of the technical staff – required for assisting in the development of sustainable rural livelihoods).

The GOL has a comprehensive plan for strengthening organizational, institutional and human capability centered on the Governance and Public Administration Reform (GPAR) program and the Public Administration and Civil Service Authority (PACSA). The World Bank, ADB and other donor organizations are well aware of the capacity development required and have been supporting it. The scale of improvement required in FM will call for a sustained effort over a period of 5-10 years. It is particularly important that donor support is both maintained and harmonized. At the moment there are too many uncoordinated interventions by donors in financial management and related capacity-building. We support the development of a MDTF for this purpose and would call upon all donors,

multilateral and bilateral, as far as possible to contribute to or at least their harmonize their support with the objectives of the PEMSP and the proposed MDTF.

More generally, we were pleased to hear that the World Bank is working with PACSA on the further development of a program of civil service reform and look forward to continued close cooperation between the Bank and PACSA on this initiative.

We are also impressed by the level of commitment of the World Bank to the NT2 project and to institutional strengthening in the GOL. There has been a rapid build-up of both international and local staff in the Country Office to support the project. A great deal of institutional knowledge and trust relationships with GOL are being developed in the Country Office, supported by the Bangkok Regional Office. NT2 and PEMSP are at a critical stage over the next three years and it is important that there is as much stability as possible in World Bank staff over this period to capitalize on the progress already made.

Recommendations

- I. As milestones for improvements to GOL financial management systems approach, the partners should review them and take into account the spirit and intent of the GOL's improvements as well as the letter of its commitments.*
- II. In its development of project proposals through participatory planning, the Committee on Planning Investment should work within clear investment and recurrent spending limits and assess proposals against the objectives of sector strategies.*
- III. In reporting its performance against the requirements of the RMA for pro-poor programs, the GOL should give priority to developing stable basic measures of services, which can be maintained to an auditable standard at a district level as indicators of the pro-poor impact of the services. Consultative processes that bring in the views of affected citizens at community levels and encourage their participation will contribute to more workable financial schemes.*
- IV. The priorities for the Supreme Audit Organization should be to strengthen its capabilities in financial audit as an integral element of the overall PEMSP, but in the longer term needs to develop its capacity to report on the quality of execution of the budget in non-financial as well as financial terms.*

- V. *The SAO should have authority to audit the accounts of the NTPC. Actual detailed audit could be undertaken by the company's auditors, but under the overall control of the SAO and with the participation of SAO staff.*
- VI. *The World Bank should work with other donors, multilateral and bilateral, to develop the proposed Multi-Donor Trust Fund (MDTF) as a means of harmonizing donor support with the objectives of the PEMSP and the proposed MDTF.*
- VII. *The World Bank should aim for as much stability as possible in World Bank staff over the next three years to capitalize on the progress and to see NT2 and PEMSP through the next critical stage of commissioning and the start of revenue flows to the GOL.*

11. THE FUTURE OF HYDROPOWER

The NT2 Hydropower Project can modestly claim that it has planted the seed for sustainable hydropower projects in Lao PDR, which has emerged as the most carefully planned, diligently studied, objectively criticized and intensively reviewed project in the country. With respect to the World Bank as the lead financial institution, the project has triggered all of its Environmental and Social Safeguards Policies, which explains the deep involvement of the WB staff in ensuring that all the safeguards concerns are properly addressed and attended to and that all the necessary structural and non-structural instruments are in place to mitigate any negative environmental and social impacts.

With the series of planned hydropower projects along the Nam Theun River, the GOL is faced with the challenge of extending the NT2 approach to those projects that are not funded by the World Bank nor the ADB. It took long for the NT2 project to be developed and implemented. At this point, NT2 cannot fully be considered as a model since the project is not yet completed. Likewise, the World Bank, with its prominent presence in the Region and in Vientiane is faced with the challenge of ensuring that the standards set in NT2 should be pursued so as not to defeat the larger goal of sustaining the operation of NT2 and other similar projects and at the same time ensuring the conservation of the watershed that feeds water into the Nam Theun River.

Parallel to the NT2 Hydropower Project is the Lao Environment and Social Project (LEnS), a five-year (2005-2010), capacity building program for addressing environment and social issues associated with the sustainable use of natural resources. It has fund support of about US \$ 4.0 million from the World Bank. One of its components is to operationalize the Environment Protection Fund (EPF) to become a permanent entity that is eligible to use NT2 revenues

for priority environmental protection activities. One of the two financing windows is the Policy Implementation and Capacity Enhancement (PICE) Window with five main sub-components namely: (1) environmental and social monitoring and policy implementation (safeguard monitoring); (2) Integrated River Basin Management in the Nam Theun-Nam Kading River Basin; (3) implementation of the sustainable Hydropower Sector Policy; (4) improved Social Safeguards Management (resettlement policy support); and (5) Environmental Education and Awareness.

Recommendations

- I. The GOL should come out with a comprehensive cumulative impact assessment of all the hydropower projects along the Nam Theun River in the framework of an Integrated River Basin Management. This should also be linked to the Greater Mekong River Basin of which the Nam Theun Basin is a sub-basin.*
- II. It is time for NTPC, GOL and the World Bank to publicize the lessons learned since the implementation of the NT2 and their implications for future hydropower projects.*
- III. The National Policy on Hydropower should be formulated soon by the GOL in light of the increasing demand for hydropower, either for local utilization or for export to neighboring countries.*
- IV. The staff complement of the GOL who play crucial roles in developing a National Policy on Hydropower and in monitoring compliance to this policy, as well as those involved in environmental compliance of development projects including the NT2, should be strengthened and capacity development be prioritized.*
- V. The World Bank and GOL need to come out with information materials on all on-going projects in Lao PDR that are linked to NT2 for better appreciation of the Lao people and various independent monitors such as the IAG.*
- VI. The LEnS project is time-bounded with fixed financial support. The GOL should set aside part of the revenue from NT2 and other development hydropower projects to sustain the program under the LEnS project.*

12. FINAL NOTE

The IAG greatly appreciated the interest and cooperation of the many people who contributed to this report. In particular, the members felt highly honored at the hospitality shown us by the villagers, who welcomed us warmly and bestowed on us the privilege of participating in the traditional basi ceremony. We earnestly hope that the product of our collective efforts will redound to their benefit and to that of the entire Lao people.

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Government of Lao (GoL)

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 HE Dr. Bosaykham Vongdara, Minister, Ministry of Energy and Mines
 HE Somdy Douangdy, Vice Minister of Finance
 H.E. Bouasy Lovansay, Minister to Prime Minister's Office, Auditor General, State Audit Organization
 Prof. Dr. Bountiem Phissamay, Minister to the Prime Minister's Office, Chairman of Science Technology and Environment Agency (STEA)
 Mr. Boonthong Keomahavong, Director General, Fiscal Policy and Head of Nam Theun 2 RMA
 Mr. Saysamone Xaysouliane, Deputy Director General, Fiscal Policy and Head of Public Expenditure Management Program Implementation Committee
 Mr. Nisith Keopanya, Deputy Director General, Department of Public Administration and Civil Service, PMO
 Dr. Kikeo Chanthaboury, Deputy Director General, Committee for Planning and Investment
 Mr. Sanya Praseuth, Deputy Director General of Accounting Policy RMA
 Ms. Khampay Vithaxay, Deputy Director General, Budget Department
 Mr. Sychath Boutsakitirath, Director of Contract Division, Bureau of Secretariat, Lao National Committed for Energy
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 Mr. Xaypaseuth Phomsoupha, Chief, Bureau of Secretariat, Lao National Committee for Energy
 Ms. Bundith Prathoumvan, Vice President, Lao Women's Union
 HE Somchay Phetsinoune, Vice Governor, Khammouane Province
 Sisavath Lathachaeu, Nakai District Governor
 Mr. Bounmy Phimmasone, Finance Department, Khammouane Province
 Sivixay Soukkharath, Manager, Resettlement Management Unit, Khammouane Province
 Mdme Keoula Souliyadeth – Vice President, Lao Women's Union
 Khammouane Province, RMU Deputy Manager
 Mr. Hoy Phomvisouck – RMU Deputy Manager

The people of the following villages:

Ban Nongboua
Ban Sop On
Ban Done
Ban Nakai Neua
Ban Nakai Tai
Ban Bua Ma
Ban Phonephanpeak
Ban Phovang
 Ban Lao Na Ngan
 Nalaongam village in Gnommalath district
 Ban NongBoua Kham
 Ban Yang Kham

Nam Theun 2 Power Company (NTPC)

Mr. Bernard Tribollet, Chief Executive Officer
 Mr. Jean Foerster, Social and Environmental Director
 Mr. Olivier Salignat, Social and Environmental Deputy Director
 Mr. John M. Harrison, former Construction Director
 Mr. Francois Douchet, Construction Director
 Mr. Mike Beauchamp, Resettlement Field Manager
 Mr. Roel Schouten, Consultant, Fisheries and Downstream Program

The World Bank

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 Mr. Shabih Ali Mohib, Financial Management Specialist
 Ms. Nanda M. Gasparini, Communications Specialist
 Ms. Stephen Ling, Environment Specialist
 Mr. Sybounheung Phandanouvong, Social Specialists
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Mr. James A. Nugent, Country Director
Mr. Edvard M. Baardsen, Senior Infrastructure Specialist, Mekong
Department
Ms. Marla Huddleston, Senior Resettlement Specialist

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United Nations Children Fund (UNICEF)

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NGO's

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Mr. Michael Hedemark, Program Co-Director, WCS
Mr. Sombath Somphone, Director, Participatory Development Training
Center
Mr. Nigel Amies, Program Advisor, CUSO
Mr. Mike Goodge, Associate, Road Safety International
Mr. Rod Lefroy, Regional Coordinator In Asia, International Center for
Tropical Agriculture
Ms. Nami Nelson, CARE International

Mr. James R. Chamberlain, Anthropologist, Resource Person on Socio-cultural
Assessment and Policy

Mr. Alan Potkin, Environmental Consultant

Appendix 1.
Nam Theun 2 Hydroelectric Power Project
International Advisory Group Visit
February 5-16, 2007

DATE	ACTIVITY	LOCATION
February 5	Briefing by World Bank (led by Stephen Lintner) <ul style="list-style-type: none"> • Recent Developments in Lao PDR • World Bank Program in Lao PDR • Overview of NT2 Project • Revenue Management • Project Management Structure • Construction Activities • Institutional Development Activities • Environmental and Social Issues • Consultation and Disclosure • Monitoring and Oversight 	World Bank Conference Room Video Conference with Shabih (Link with Mongolia)
February 6	Meeting with GoL, NTPC, ADB and AfD Progress report of NTPC	World Bank Conference Room
	Internal Meeting of IAG; Review and Discussion of Recent Reports and Documents	World Bank Conference Room
	Review and Discussion with World Bank Staff	World Bank Conference Room
February 7	Breakfast with Mr. Jim Chamberlain	Lao Plaza
	Internal Meeting of IAG	WB
	Meeting with H.E. Dr. Bosaykham Vongdara, Minister of Energy and Mines	MOEM
	Meeting with Mr. Boonthong Keomahavong, Director General Fiscal Policy and Head of Nam Theun 2 RMA and Mr. Saysamone Xaysouliane, Deputy Director General Fiscal Policy and Head of Public Expenditure Management Program Implementation Committee	MOF
February 8	Meeting with H.E Somdy Douangdy, Vice-Minister of Ministry of Finance, Chairman of Public Expenditure Management Standing Committee and Head of Budget Law Implementation Committee -	MOF
	Meeting with CARE International	CARE office
	Meeting with Mr. Mike Hedemark, Wildlife Conservation Society	WCS office
	Meeting with H.E. Sitaheng Ladsaphon, Minister of Agriculture and Forestry	MAF
	Lunch meeting with Mr. Sombat	Lao Plaza

DATE	ACTIVITY	LOCATION
	Meeting with H.E. Dr. Bountiem Phisamay, Minister to the Primer Minister's Office and President of Science, Technology and Environment Agency (STEA)	STEA
	Meeting with Mr. Sanya Praseuth, Deputy Director General of Accounting Policy RMA	MOF
	Dinner meeting with Ms. Marla Huddleston, Senior Resettlement Specialist, ADB	Lao Plaza
February 9	Travel from Vientiane to Laksao via Theun Hinboun Lunch meeting with John Morrison and Francois Douchet Visit the dam site in Nakai Travel to Oudomsouk (on the way, pass the new bridge at Ban Thalang) Stay overnight in Nakai Residential Complex.	Laksao Nakai
February 10	Visit to the Powerhouse and Downstream Channel, Water Intake Structure and Headrace Channel Drive up the escarpment to Nakai Plateau	
	Visit to the Ban Sop-on and Bua Ma Village Visit to Nakai Neua and Nakai Tai	
	Baci Ceremony and dinner in Nakai Wooden Guesthouse with Mr. James W. Adams, World Bank Vice-President for East Asia and the Pacific Region, Provincial and district governors.	
	Overnight in Nakai Residential Complex	
February 11	Breakfast in the Nakai Wooden Guesthouse with the WB VP	
	Visit to the Water Intake Structure and the Phonephanpeak Village with the Governor of Nakai District, Mr. Sisavath Lathachau Visit Pilot Villages in Downstream area	
	Visit to Ban Lao Na Ngan at Gnommalath District Visit to Phovang Village, Mahaxay District Return to Nakai	
February 12	Meeting with Mike Beauchamp and J. Forster of NTPC Travel to Thakek, stop over to visit downstream villages <ul style="list-style-type: none"> • Nong Boua Kham Village • Yang Kham Village, Xe Bai Fai District, Focused group discussion with the women 	
February 13	Meeting with H.E. Mr. Somchay Phetsinuane, Vice Governor of Khammouane Province and Mr. Sivixay Soukkalath, Director of RMU	
	Meeting with Mr. Bounmy Phimmasone, Finance Department in Khammouane	

DATE	ACTIVITY	LOCATION
	Meeting with J. Forster and R. Schroeder, Downstream Program Office of NTPC Presentation of the DSP by NTPC	
	Travel back to Vientiane	
February 14	IAG writeshop	
	Meeting with Shabih/ Workshop on Implementation of the New Budget Law	World Bank Conference Room
	Meeting with Mrs. Bundit Prathoumvanh, Lao Women Union	LWU
	Meeting with H.E. Bouasy Lovansay, Minister to Prime Minister's Office, Auditor General, State Audit Organization on audit strengthening	Prime Minister's Office
	Meeting with Mrs. Khamphay Vithaxay, Deputy Director General Budget Department	MOF
	Meeting with Mr. Nisith Keopanya, Deputy Director General, Department of Pub.Admind & Civil Service	MOF
February 15	Meeting with Mr. Alan Potkin, Environmental Consultant	Lao Plaza
	IAG Writeshop	World Bank Conference Room
	Luncheon meeting with Ms. Olivia Yambi, UNICEF Representative, Lao PDR.	Le NaDao
	Meeting with Mr. Kikeo, CPI	CPI
	Cocktail with World Bank Team – Hosted by Country Manager Patchamuthu Illangovan	CM Residence
February 16	Meeting with INGOs – Handicap International, CUSO, CIAT	World Bank Conference Room
	Briefing to World Bank Staff – (Mr. Ian Porter, World Bank Country Director for Southeast Asia and Mr. Patchamuthu Illangovan, World Bank Manager, Lao PDR, Stephen Lintner through VC)	World Bank Conference Room
	Briefing to World Bank, GoL, NTPC, ADB and AfD	World Bank Conference Room
February 17	Departure	

ACRONYMS

BOS	Bureau of the Secretariat (of the Lao National Committee on Energy)
CA	Concession Agreement
CAS	Country Assistance Strategy
COD	Commercial Operation Date
CPI	Committee on Planning Investment
CUSO	Canadian University Service Overseas now known simply as CUSO
CIAT	International Center for Tropical Agriculture
DSP	Downstream Program
EMU	Environmental Management Unit
FMIS	Financial Management Information System
GPAR	Governance and Public Administration Reform
GLIP	Government Letter of Implementation Policy
GOL	Government of Lao
HIA	Health Impact Assessment
IAG	International Advisory Group
IFIs	International Financial Institutions participating in NT2
INGO	International NGO
INTOSAI	International Organization of Supreme Audit Institutions
LE	Lenders' Engineer
LEnS	Lao Environment and Social Project
LWU	Lao Women's Union
MAF	Ministry of Agriculture and Forestry
MDTF	Multi-Donor Trust Fund
MOF	Ministry of Finance
NGO	Non-Governmental Organization
NPA	Non-Profit Association
NT2	Nam Theun 2 Hydropower Project
NTPC	Nam Theun 2 Power Company
NTSEP	Nam Theun 2 Social and Environment Project
NSEDP	National Social and Economic Development Plan
OTOP	One Town One Product
PACSA	Public Administration and Civil Service Authority
PAPS	Projected Affected Persons
PDR	People's Democratic Republic
PEMSP	Public Expenditure Management Strengthening Program
POE	Panel of Experts
RMA	Revenue Management Arrangements
RMU	Resettlement Management Unit
RO	Resettlement Office (of NTPC)
SAO	State Audit Office
SEMFOP	Social and Environmental Framework Operation Plan

STEA	-	Science, Technology and Environment Agency
UXO	-	Unexploded Ordinance
VFA	-	Village Forestry Association
WBG	-	World Bank Group
WCS	-	Wildlife Conservation Society
WMPA	-	Watershed Management Protection Authority
XBF	-	Xe Bang Fai