

**UPDATE ON THE
LAO PEOPLE'S DEMOCRATIC REPUBLIC (PDR):
NAM THEUN 2 (NT2)
HYDROELECTRIC PROJECT**

May 11, 2007

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AfD	Agence Française du Développement
COD	Commercial Operations Date
EdL	Electricité du Laos
EMO	Environmental Management Office
EMU	Environmental Management Unit
FCM	Fishery Catch Monitoring
GDP	Gross Domestic Product
HCC	Head Construction Contractor
IAG	International Advisory Group
IDA	International Development Association
IFIs	International Financial Institutions participating in NT2
IMA	Independent Monitoring Agency
JBIC	Japan Bank of International Cooperation
JPER	Joint Portfolio Effectiveness Review
LE	Lenders' Engineer
LEnS	Lao Environment and Social Project
MAF	Ministry of Agriculture and Forestry
MDTF	Multi-Donor Trust Fund
MOF	Ministry of Finance
NGO	Non-Governmental Organization
NNT	Nakai-Nam Theun
NSEDP	National Socioeconomic Development Plan
NT2	Nam Theun 2 Hydroelectric Project
NTFP	Non-Timber Forest Products
NTPC	Nam Theun 2 Power Company Limited
PDR	(Lao) People's Democratic Republic
PEMSP	Public Expenditure Management Strengthening Program
POE	Environmental and Social Panel of Experts
PRSO	Poverty Reduction Support Operation
REP	Rural Electrification Phase I Project
RMA	Revenue Management Arrangements
RMU	Resettlement Management Unit
RTM	Round Table Meeting
SAO	State Audit Organization
SPG	Strategic Plan on Governance
TFP	Timber Forest Products
UXO	Unexploded Ordnance
VFA	Village Forestry Association
WB	World Bank
WMPA	Watershed Management and Protection Authority

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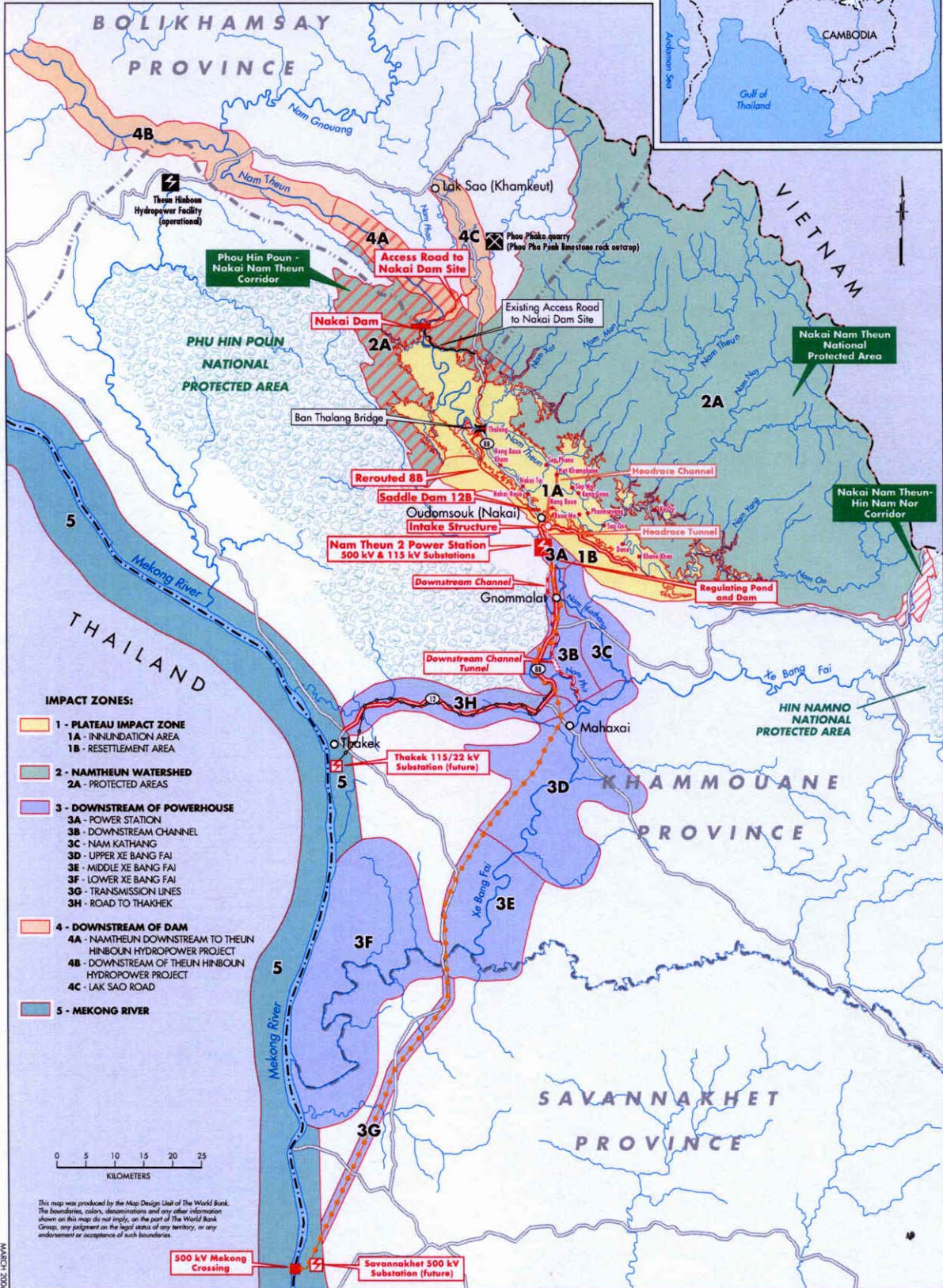
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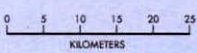
LAO PEOPLE'S DEMOCRATIC REPUBLIC
NAM THEUN 2 HYDROELECTRIC PROJECT

IMPACT ZONES AND KEY FEATURES (as of March 9, 2006)

- | | | | |
|------------------------------|---|------------------|--------------------------|
| IMPACT ZONES (SEE LIST*) | VILLAGES TO BE RESETTLED | POWER PLANT | SELECTED CITIES |
| PROTECTED WILDLIFE CORRIDORS | 500 kV TRANSMISSION LINE | QUARRY | MAJOR ROADS |
| PROTECTED AREAS | 115 kV TRANSMISSION LINE UNDER CONSTRUCTION | HEADRACE CHANNEL | RIVERS |
| DOWNSTREAM CHANNEL | ROADS TO BE UPGRADED UNDER THE PROJECT | HEADRACE TUNNEL | PROVINCE BOUNDARIES |
| DOWNSTREAM CHANNEL TUNNEL | ROADS TO BE RE-ROUTED UNDER THE PROJECT | BRIDGE | INTERNATIONAL BOUNDARIES |
| INTAKE STRUCTURE | | | |



- IMPACT ZONES:**
- 1 - PLATEAU IMPACT ZONE
 - 1A - INUNDATION AREA
 - 1B - RESETTLEMENT AREA
 - 2 - NAMTHEUN WATERSHED
 - 2A - PROTECTED AREAS
 - 3 - DOWNSTREAM OF POWERHOUSE
 - 3A - POWER STATION
 - 3B - DOWNSTREAM CHANNEL
 - 3C - NAM KATHANG
 - 3D - UPPER XE BANG FAI
 - 3E - MIDDLE XE BANG FAI
 - 3F - LOWER XE BANG FAI
 - 3G - TRANSMISSION LINES
 - 3H - ROAD TO THAKHEK
 - 4 - DOWNSTREAM OF DAM
 - 4A - NAMTHEUN DOWNSTREAM TO THEUN HINBOUN HYDROPOWER PROJECT
 - 4B - DOWNSTREAM OF THEUN HINBOUN HYDROPOWER PROJECT
 - 4C - LAK SAO ROAD
 - 5 - MEKONG RIVER



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

I. INTRODUCTION AND SUMMARY

1. ***This is an annual Update on the project.*** The management of the World Bank (WB) and the management of the Asian Development Bank (ADB) have agreed to keep their respective Boards informed about implementation of the Lao PDR Nam Theun 2 Hydroelectric (NT2) project¹ through joint reporting on an *annual* basis, supplemented by *semi-annual* updates. This *annual* Update builds on the last *semi-annual* Update (October 23, 2006). The next *semi-annual* Update is planned for circulation to the respective Boards in October 2007.

2. ***Important progress has been made in various areas since the last Update.*** Noteworthy achievements and developments include:

- Government's National Socioeconomic Development Plan (NSED) was endorsed by donors and international civil society, and the Vientiane Declaration on Aid Effectiveness was signed by development partners and Government at the 9th Round Table Meeting (RTM) held in November 2006;
- The Budget Law was approved by the National Assembly, signaling Government's deepening commitment to implement reforms in public financial management through the Public Expenditure Management Strengthening Program (PEMSP);
- Construction activities are increasingly better synchronized with environmental and social mitigation measures, and the current status of physical implementation of the NT2 project does not signal major slippages or cost over-runs;
- The Nam Theun 2 Power Company Limited (NTPC) continues to strengthen its capacity, and it has now in place more staff to manage environmental and social impact mitigation actions; Government has also made significant efforts to strengthen its implementation capacity under the leadership of Deputy Prime Minister and Standing Member of the Government Somsavat Lengsavad;
- Reservoir salvage logging commenced in October 2006, and is largely on track and under close monitoring;
- Overall resettlement of villages in the Plateau is progressing well and all villages are expected to complete their physical relocation by June 2008, however, the implementation of livelihood programs needs to be accelerated;
- The Watershed Management Protection Authority (WMPA) continues to make commendable progress in the management of the Nakai Nam Theun (NNT) Protected Area;
- Implementation progress in the 21 pilot villages in the downstream area is giving encouraging results and important lessons for plans for scale-up; and
- The Environmental and Social Panel of Experts (POE) and the International Advisory Group (IAG) visited the project area in January/February 2007 to review progress; and

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

the appointment of independent monitoring agencies (IMAs) is nearing completion for all project areas, except the downstream which will be completed in June 2007.

3. ***However, areas of concern remain and actions are being taken to resolve these issues.***

As noted above, while progress thus far is satisfactory in many respects, there are areas that warrant significant attention. These include: (i) as noted by the POE in its January 2007 visit, the livelihood programs on the Plateau, along the downstream channel, and in the downstream area need to be accelerated and able to provide villagers in all areas with viable alternatives; (ii) construction of project roads (which span over 140 km) are progressing satisfactorily, but concerns remain on issues of erosion, slope stabilization and dust, and some new concerns have arisen on the new National Road 8b on the Plateau, particularly regarding design of culverts and drainage; (iii) issues with compensation in the project lands – where at times interim compensation was mistakenly deducted from final compensation – need to be quickly rectified; (iv) the phasing and sequencing of the downstream program as it scales-up, needs continuing attention over the coming months; and (v) resettlement of some of the Ban Sop Hia and Ban Nam Nian households need immediate resolution and final resettlement sites must be agreed on (Ban Sop Hia) and entitlement packages developed for both.

4. ***Oversight arrangements, supervision efforts, and reporting have been adjusted to respond to evolving needs and implementation experiences.***

The IAG has been strengthened with the addition of three new members and the first visit of the expanded IAG took place in February 2007. The POE visited the project site in January 2007 (following up on its August 2006 visit) and its next visit is planned for August 2007. The recommendations of the IAG and POE are received constructively by Government, NTPC and the international financial institutions (IFIs). Disclosure activities on the part of NTPC and Government have been reasonably effective in disseminating information to stakeholders but should be accelerated with respect to a few key technical documents. Information is also provided through responses to periodic inquiries from civil society organizations on implementation details and a WB NT2-dedicated website is in place with updated project information. Cooperation among the IFIs on joint supervision missions – fielded twice per year – and regular visits of the field-based technical teams of the WB, ADB and the Agence Française du Développement (AfD) continues to be exemplary. Project supervision effectiveness has been enhanced, and efforts of the ADB and WB are in close alignment and are well-coordinated with those of AfD. The broader group of co-financiers remains in close contact through regular exchanges of information and periodic discussions.

5. ***The next 12 months are critical.***

Reservoir impoundment and commercial operations are likely to commence by the target dates of June 2008 and December 2009, respectively, but continued close monitoring is needed – particularly of resettlement and livelihood development activities – to ensure that necessary progress continues in tandem with the advancing construction activities. At the same time, there is need to identify NT2 eligible expenditures – consistent with the NT2 revenue management arrangements (RMA) – so these can be clearly identified in the FY2008 budget. In tandem with identification of the eligible expenditures, effective centralization of Treasury will also be critical for effective execution of these expenditures.

II. RECENT COUNTRY DEVELOPMENTS

6. ***The Lao PDR economy has performed particularly well in recent years and the outlook remains favorable, provided risks are managed.*** Lao PDR continues to enjoy rapid economic growth and strong progress in poverty reduction. The share of poverty was reduced by 30 percent in one decade, lifting one eighth of the total population out of poverty. In the 1990s, real GDP growth averaged more than 6 percent per year and this impressive performance was sustained in the first five years of the new century. The economy has performed particularly well in recent years, with growth increasing to 7 percent in 2005, up from 6.4 percent in 2004, and estimated at about 7.5 percent in 2006. This growth is in large part due to foreign investment inflows in mining and hydropower and growing mineral exports, but the share of contributions from other sources (such as manufacturing and agriculture) has increased this year, reaching 4.9 out of 7.3 percent. The agriculture, manufacturing and service sectors are expected to sustain growth, due to rising foreign direct investment in these sectors (especially tourism services). Macroeconomic conditions remain relatively stable, reflecting improved monetary and fiscal discipline, with inflation in single digits for the last several years, and public expenditures under control. The fiscal situation has been steadily improving, and if structural reforms accelerate, real GDP growth is projected to stay at 6 to 7 percent, with underlying growth at around 5 percent.² The strong implementation performance of NT2 has not only raised the level of partnership and trust between Government and the international community, it has also provided the impetus to accelerate reform across several areas. Finalization of the NSEDP and Government's efforts to strengthen other areas of reform such as governance and anti-corruption provide a strong foundation to continue to accelerate growth and reduce poverty.

7. ***Nevertheless, Lao PDR still faces significant development challenges.*** A number of risks exist that potentially could undermine the strong economic performance, especially on the fiscal side (where sustaining this year's progress on revenue mobilization will be important) as well as on the external debt side (where a prudent borrowing strategy – that does not exacerbate already high debt indicators – should be continued). First, while there has been a significant acceleration in foreign direct investment in the natural resource sector, competitiveness more generally is relatively weak, hampering the capacity of the economy to generate employment and ensure a broad-based improvement in living standards. Second, the macroeconomic situation is still fragile. Revenues have started to improve, after a period of decline in the early part of the decade, but are still low by regional standards and fall well short of essential public expenditure needs. Government debt, at 80 percent of GDP, is high and the banking system is still fragile and underdeveloped. Finally, public service delivery will need to be upgraded significantly if Lao PDR is to achieve sustained progress in social indicators. This will require, *inter alia*, better alignment of public expenditures with plan priorities and improved coherence, more generally, between national and local level planning and budgeting. These risks are being addressed in part through the WB's proposed third Poverty Reduction Support Operation (PRSO3).

8. ***The 9th Round Table Meeting in November 2006 was an important milestone.*** Government's sixth five-year *NSEDP* (for 2006-2010), which serves as Government's Poverty Reduction Strategy and addresses the key actions to be taken and the challenges that must be overcome for Lao PDR to realize its economic and social development potential, received the

² Growth figure excludes the large projects, such as the Sepon mine and the NT2 Hydroelectric Project.

endorsement of donors and international civil society at the 9th RTM on November 28, 2006. The NSEDP builds on the achievements of the past plan period by continuing to support broad-based growth and focused poverty reduction initiatives while also trying to overcome capacity constraints. It aims to prioritize Government's investment efforts by geographically targeting poor districts and focusing on four sectors: education, health, agriculture and forestry, and infrastructure. Also at the RTM, Government presented its *Strategic Plan on Governance (SPG)* and Government and 22 development partners signed the *Vientiane Declaration on Aid Effectiveness*. Both the SPG and the Declaration will support implementation of the NSEDP.

9. ***The NSEDP makes development priorities, including poverty reduction, more explicit and transparent.*** The NSEDP – prepared through a participatory process which deepened country ownership – sets fairly ambitious targets and builds on recent reform achievements while identifying critical interventions in the areas of macroeconomic management, structural and fiscal reforms, capacity and human resource development, and expansion of infrastructure. Significantly, it recognizes that the private sector is an important driving force for accelerating growth and reducing poverty, and articulates sound policies to provide a more supportive investment climate. These policies are complemented by strategies for infrastructure, rural and social development, and environmental protection for sustainable, export-driven growth. At the same time, there are gaps and areas of weakness in the NSEDP, particularly the implementation aspects, where weak capacity constitutes a challenge, and with regard to the need for a viable medium-term financing framework.

10. ***Implementation of the NSEDP is complemented by Government's SPG.*** To overcome governance and corruption challenges that may arise during NSEDP implementation, Government has been working on the SPG as well as a national anti-corruption strategy. The SPG, which represents an important first step forward in the Lao PDR, focuses on improving public services, enhancing transparency and public participation in policy-making processes, strengthening the rule of law, and improving public financial management. It describes the basis for a people-centered administration that is important to underpin NSEDP implementation. Recognizing the ill-effects of corruption, Government is putting in place policy, institutional and legal measures to combat this problem. In addition to a new anti-corruption law and signing of the UN Convention Against Corruption, Government has upgraded the role and status of the State Inspection Agency (the key domestic institution for fighting corruption), and has appointed one of the Deputy Prime Ministers to oversee this agency and lead the fight against corruption more broadly.

11. ***Government has taken significant steps in advancing the reform agenda and strong progress has been made in various areas.*** While this Update does not provide comprehensive coverage of such progress, a few highlights are provided. The adoption and implementation of the new Enterprise Law is a significant step forward in sustaining growth through improved management of key drivers (i.e., regional integration and private sector development, rural development, and natural resource management). There are also improvements in other regulatory reform areas, such as the “one-stop shop” for investors, cancellation of licensing fees, and a “one-stop inspection” pilot at the border. The number of days to start a business has been reduced significantly and Government has consulted with businesses at two sessions of the Lao Business Forum – a group supported by the International Finance Corporation (IFC) that has improved transparency and coordination for businesses in the country. The new organic Budget

Law (see below) will help to improve social outcomes and reduce vulnerability through strengthened public financial management and service delivery capacities and targeted poverty reduction programs. Measures aimed at improving fiscal management have been largely positive and have resulted in Government achieving its revenue target in FY2005/2006 – overcoming shortfalls in revenue collection that were highlighted as a critical weakness by the Public Expenditure Review.

12. ***Government and donors have also taken key steps towards enhancing donor impact.*** The Vientiane Declaration on Aid Effectiveness is an important step toward increasing the impact of development assistance – thereby supporting NSEDP implementation. The Vientiane Declaration commits its signatories to implementing key elements of the Paris Declaration in the local context. Implementation of this declaration will help Government align donor resources behind the NSEDP; help development partners harmonize their approaches in ways that will reduce transaction costs for Government; and increase the effectiveness of capacity development efforts. A detailed action plan with associated indicators will be completed by end-May 2007 to guide implementation. Given the high proportion of public investment that is dependent on development assistance, implementing steps to increase aid effectiveness should be a priority for both Government and development partners in the Lao PDR.

13. ***Improving Government capacity on portfolio management will also be essential to improving aid effectiveness.*** One of the major constraints to aid effectiveness in the Lao PDR is weak capacity across institutions. This capacity gap is important, not only in technical aspects but also in portfolio management. To increase aid effectiveness, the Government, ADB, Swedish International Development Cooperation Agency (SIDA), and WB held a second Joint Portfolio Effectiveness Review (JPER) in April 2007, in which the four partners identified several common constraints to their portfolios and agreed on a set of remedial actions to redress them. The areas identified remained consistent with those identified in the first JPER (November 2005), including: general portfolio management, financial management, monitoring and evaluation, project implementation arrangements and capacity development. Some key actions for developing Government capacity are to: (i) develop harmonized Standard Operating Procedures, including a Financial Management Manual, to be used by development agencies preparing projects in the Lao PDR; (ii) develop sectoral capacity development frameworks around which development partners could combine their interventions, focusing on three levels – individual skills, organizational structures and processes, and institutional practices – a mandate was obtained, in the Ministries of Education and Public Health, to develop such frameworks; and (iii) move forward in integrating project management functions into their line structure rather than maintaining them in parallel project implementation units. As a complementary step, the WB is participating actively in the development of an Aid Effectiveness Action Plan, which will include a significant number of actions to increase aid effectiveness, and which will have an important focus on capacity development. Satisfactory implementation of agreed interventions in this action plan will be key.

14. ***Government is also strengthening its implementation capacity across key sectors.*** Initial diagnostics and multi-stakeholder workshops in the education and health sectors are key steps that have been taken towards sector-wide approaches. Government also has demonstrated strong commitment to and participation in NT2 implementation and is making progress on its ability to manage environmental protection and social development programs over the long term. Initial

steps have also been taken towards the implementation of the National Policy on Environmental and Social Sustainability of the Hydropower Sector.

15. ***The proposed PRSO3 is expected to be submitted for approval by the WB's Executive Directors by end-May 2007.*** PRSO3 concludes the first programmatic series of PRSOs in Lao PDR and marks three years of macroeconomic policy and structural reforms. Government expressed interest to continue budget support operations for the recent NSEDP through PRSO4 to PRSO7, and preparations are ongoing. Donors are coming on board as co-financiers of the PRSOs as well. The Japan Bank of International Cooperation (JBIC) has signed a concessional loan agreement to co-finance the PRSO2 operation and JBIC and the European Commission are preparing to support PRSO4 to PRSO7 with co-financing of approximately US\$7million in additional resources provided to Government.

16. ***The National Assembly passed a new organic Budget Law in December 2006, well ahead of schedule.*** A sound public financial management framework is being put in place through various activities, including enactment of the new Budget Law and implementation of the PEMSP. This framework links reforms with desired outcomes and sets the foundation for proper use of NT2 revenues (and more broadly those of other hydropower and mining projects) in support of poverty reduction and improved environmental management. Provisions within this Budget Law envisage significant centralization of tax administration, customs, and national treasury activities. The Law also requires development of a comprehensive inter-governmental fiscal transfer mechanism. These provisions aim to address fundamental weaknesses in the current central-local fiscal relations framework that led to inefficiencies in revenue collection and poor execution of expenditure policies at the sub-national level. Implementation of the new Budget Law will be critical for achieving the desired outcomes, and will require significant and coordinated financial support, continued political commitment at the highest level, and adequate implementation capacity.

17. ***PEMSP implementation has been progressing well.*** Since the last Update, Government drafted and issued for wider consultation the revised PEMSP document with an updated implementation schedule. Based on consultations with provinces, line ministries, and donors, the Ministry of Finance (MOF) is in the process of finalizing this program document. Government has continued implementation of critical component elements – revising the budget Chart of Accounts, developing a functional classification of the budget (consistent with International Monetary Fund Government Financial Statistics) and realigning budget nomenclature. It is expected that this work will be completed soon, followed by a year-long training process. The new chart of accounts is expected to be piloted starting in October 2007 and fully deployed by October 2008. Furthermore, Government is seeking to establish a Multi-Donor Trust Fund (MDTF) to support reforms in public financial management, and has initiated a Government-donor dialogue on modalities for its establishment. Meanwhile, the MOF formulated a comprehensive capacity building strategy, as part of the PEMSP, which was endorsed by Government in February 2007. Assistance from the Banks in developing a medium-term fiscal framework and a medium-term expenditure framework is ongoing.

18. ***Progress continues to be made on implementation of NT2 Revenue Management Arrangements.*** Specific elements of the NT2 RMA are being implemented under the PEMSP, and these activities are well coordinated. The revised Chart of Accounts and functional

classification structure of the budget was approved by the MOF at the beginning of April. This Chart of Accounts is consistent with RMA requirements and was a critical element of the PEMSP. The Minister for Finance has also approved an implementation strategy that will ensure that the Budget for FY2008/2009 is prepared using the new Chart of Accounts. Work is now commencing on determining NT2 eligible programs. At the same time Government is continuing to strengthen the Government Financial Information System for improved budget monitoring and recording. The progress made thus far on the NT2 RMA continues to strengthen Government readiness to manage income generated by NT2 (which will begin to flow to Government in 2010).

19. ***Progress has also been made on strengthening audit performance as part of the public financial management agenda.*** The new Auditor General has put capacity building for audit strengthening at the top of the agenda for the State Audit Organization (SAO). In this regard, a delegation led by the Auditor General recently visited the Auditor General's Office in New Zealand to discuss the audit peer review process, which will result in formulation of a comprehensive audit strengthening program. SAO management has confirmed that the Audit Peer Review will commence before June 2007. The drafting of the Audit Law has been progressing satisfactorily. The Audit Law is scheduled for National Assembly consideration by the third quarter of 2007.

20. ***MOF is moving forward on a comprehensive capacity building strategy and there is need to provide coordinated support via an MDTF arrangement.*** Under the PEMSP, the MOF has formed a task force on capacity building. This task force brings together all departments around the capacity building elements of the PEMSP program. A full time capacity building advisor has been engaged to develop a comprehensive public finance management capacity building strategy. The key bottlenecks to capacity development and sustainability seem to be: (i) low pay scales, leading to sub-optimal performance incentives and problems in retaining capacity and (ii) lack of adequate technical staff to perform assigned duties leading to delay in policy implementation and effective coordination. Furthermore, fragmented and uncoordinated donor assistance towards capacity building exacerbates this problem. It is hoped that the proposed MDTF framework will improve coordination in donor assistance and reduce the burden on scarce Government capacity.

III. NT2 IMPLEMENTATION

21. ***Overall progress on physical, social and environmental aspects is better synchronized, but the next 12 months are critical.*** Reservoir impoundment and commercial operations are scheduled to take place in June 2008 and December 2009, respectively, but continued close monitoring by the IFIs is needed – particularly of resettlement and livelihood development activities – to ensure that necessary progress continues in tandem with the advancing construction activities.

Construction

22. ***The current status of physical implementation of the project does not signal major slippages or cost over-runs.*** Roughly twenty-one months into implementation from financial

close in June 2005, overall progress on civil and electromechanical works is over 40 percent at end-February 2007, with civil works more than half completed. The project labor force has reached about 8,250 (78 percent of whom are Lao). Underground excavation works are practically completed and, hence, one of the largest risk factors for construction delays has been eliminated. Many elements are on or ahead of schedule; however, Nakai dam construction is still behind the reference schedule. This situation is being remedied and the concreting of the spillway should be completed by the beginning of the upcoming rainy season. Construction at the powerhouse is on schedule, with concreting of the sub-structures well advanced and electromechanical works under way since January 2007. Work on the thirteen saddle dams is on schedule, with one completed, four under construction and eight to be constructed during the next dry season. Construction of the 8-km headrace channel is ahead of schedule, and excavation of the headrace tunnel and related works is nearly completed. Construction is on schedule for the intake structure as well as the tailrace channel. The regulating dam has been excavated and concreting is in progress, with a slight delay that is being mitigated; related electromechanical works commenced in February 2007, on schedule. Difficulties encountered in excavation of the downstream tunnel (due to the karstic conditions) have been addressed with the excavation of the upper half of the tunnel now completed. The downstream channel construction activities are on schedule.

23. ***Construction of project roads presents new and ongoing challenges.*** Construction of project roads (which span over 140 km)³ are progressing satisfactorily overall, but concerns remain on issues of erosion, slope stabilization and dust. Additionally, recent site inspections raise some new concerns on the new National Road 8b on the Plateau, particularly regarding design of culverts and drainage as well as slope protection and safety in certain sections. This road will be transferred to Government shortly after project construction is complete. A review by NTPC, the Head Construction Contractor (HCC) and the Government's Engineer is underway, including a detailed assessment of deficiencies and development of suitable corrective actions.

24. ***Other environmental issues relating to construction are being adequately managed.*** The HCC has continued to strengthen its environment program, and Government's Environmental Management Unit (EMU) now has an active field presence. This, together with closer interaction with NTPC's Environmental Management Office (EMO), has resulted in ongoing improvements in the management of construction-related environmental impacts, including sustained alleviation of earlier water quality issues in the Nam Kathang, a highly appropriate program of environmental education for the workforce, and an effective response to the concerns raised by the POE over waste management at the dam site workers' camp. Constant vigilance is required on a range of site management issues, however, and particular attention will have to be paid during the remainder of the construction phase to the re-vegetation and rehabilitation of construction sites, and to tracking, storage and final disposal of hazardous waste. At present, the most pressing issues are related to road construction, as discussed above.

³ Project roads include: 75 km between Thakek and the powerhouse and on to Oudomsouk village; 39.5 km on the Nakai Plateau; 14.1 km of access road to the dam site at Nakai; and 12 km of resettlement roads near Oudomsouk.

Environmental and Social Safeguard Aspects

25. *Safeguard mitigation and management programs continue to make progress, but certain areas require more attention and timely actions are needed to keep momentum.*

Overall, implementation of the various social and environmental mitigation and management programs has advanced well. Public health, physical cultural resources and management of the NNT Watershed are among the best performing safeguard-related components. Earlier identified weaknesses in environmental management are being addressed and general performance in this regard has seen improvement, with strengthened monitoring by the NTPC and Government environment offices. After a slow start, the wildlife program is moving forward. The elephant program is about to start Phase II and the initial survey and planning phase of the rest of the wildlife program is well under way. Progress on analytical studies⁴ still requires close attention to ensure that impacts and issues are identified in time and dealt with effectively. Salvage logging and maintenance of the integrity of the NNT Watershed also need continuing close attention. Government has focused considerable efforts in this regard and activities are proceeding with reasonable success.

26. *Resettlement programs are progressing well but are on a critical path and will need to be carefully coordinated with other project components over the next 12 months.*

Construction activities are better synchronized with progress on resettlement but the overall implementation program still faces a very tight schedule. The Nakai resettlement program has overcome early delays. Over half of the resettler households have moved into temporary houses at permanent sites and the transitional program is in place and helping the resettlers cope with their new environment. Basic infrastructure is in place at the permanent sites (i.e., roads, drinking water and schools, among others). Project officers and facilitators are working full-time in the villages and project health teams are carrying out regular health checkups and visits in the new villages. Transitional packages, including rice allowance, protein supplements (i.e., beef, chicken and eggs, among others) and payment for labor contribution, have been provided to support villagers during this period. Site clearance and permanent house construction are on-going. Resettlers are generally satisfied with the program. With the current progress on site development, housing and infrastructure construction, and agreed relocation plans, the resettlement programs are expected to meet the needs for impoundment at mid-2008 and commercial operations date (COD) at end-2009, but this will need to be closely monitored to ensure that outstanding issues are resolved and any eventual further constraints on implementation progress are promptly addressed.

27. *The livelihood programs on the Plateau, along the downstream channel, and in the downstream area have also seen gradual progress.*

After a slow start, the Plateau program is now clearly moving ahead but will require work on building consensus around the proposed agricultural development options, finalizing plans on community forestry and fisheries, and developing integrated village-level packages. A further issue is the clearance of unexploded ordnance (UXO) in the reservoir drawdown zone. In the downstream area, implementation of livelihood restoration programs has also been initiated on a pilot basis. Plans for scaling up (including budgets) have been finalized and await approval of Government before roll-out can begin. Commissioning of a full baseline socio-economic survey is being developed. Although the

⁴ Analytical studies such as: Wildlife Baseline Survey, Phase II of the Elephant Program, Reservoir Impoundment Management and Biomass Clearance Study, etc.

implementation period for livelihood programs (Downstream, Project Lands, Nakai) extends well beyond the date of impoundment and commercial operation, activities will need to accelerate and be closely monitored over the next 12 months.

28. ***Government entities and NTPC continue to build their capacity at varying pace and these efforts need to be sustained.*** As noted in the October 2006 WB/ADB Update, NTPC has recruited expertise to strengthen its Environment and Social Unit and improve general management of construction-related environmental impacts. It is taking actions to strengthen coordination with the HCC as well as with Government and its EMU, and to improve supervision of the HCC. That said, further efforts are needed in these important areas to deliver adequate results.

Plateau

29. ***Resettlement programs are progressing well, but concerns remain.*** Of the 1,216 households to be relocated by May/June 2008, 761 households are scheduled to complete the relocation to their permanent resettlement sites by end-June 2007 (with 742 households out of the 761 having already moved). Another 455 households will move in the 2007-2008 dry season. Thus all 1,216 households that were originally located in the area to be inundated by the formation of the reservoir will complete their relocation by May/June 2008, when impoundment is expected to begin. There are two concerns for the coming months: (i) construction of permanent housing; and (ii) possible acquisition of additional land. Regarding (i), construction needs to be accelerated, and resolving timber supply constraints is a high priority for the Government. It is expected that, by the end of the 2007 dry season, approximately half the permanent housing stock will be in place. NTPC will provide an updated schedule of housing construction through the date of impoundment. This needs to be closely tracked to ensure that any eventual further constraints are promptly addressed. Regarding (ii), as per the POE's recommendations during their last visit, an additional 5,200 hectares of land may need to be added to the northern cluster of resettlement villages where human density is the highest on the plateau. Government and NTPC are reviewing this proposal.

30. ***There are also a few persistent localized but important resettlement issues that need quick resolution.*** Two require particularly close attention and follow-up. The first concerns the resettlement option of the 18 Vietic households from Sop Hia village, whose preference of staying close to their existing village or moving to planned resettlement sites is still undergoing a process of consultations to clarify their views. Government, NTPC, IFIs and other monitoring bodies have been working to resolve this issue. Further assessment of the site's livelihood potential needs to be carried out and an entitlement package will need to be developed. Temporarily, these households will move close to their existing village before the coming wet season and will move to the permanent site in the dry season 2007-2008, after necessary technical planning is completed. The second issue concerns the resettlement option for several households from Ban Sop Hia and Ban Nam Nian⁵ that prefer to move off the plateau to Khamkeut district. There is agreement from NTPC and Government on this arrangement, but it is important that the villagers' resettlement options be reviewed and confirmed with the host

⁵ Villagers from Sop Hia and Nam Nian (which fall within the Khamkeut district) had planned to move to the Nampan resettlement site; however, this site was dropped due to water pollution (unrelated to the project).

district governments and existing villages that will host those to be resettled. A new entitlement package will need to be developed for these households.

31. ***Progress on the Nakai livelihood development component must be accelerated.*** Considerable progress has been made in the physical resettling of households on the Plateau and now the livelihood development component must gain momentum. The core component programs include agriculture and livestock development, a village forest program, off-farm activities (baskets, weaving and others), and Nakai reservoir fishery. While agricultural and village forest programs have achieved some progress, livestock and reservoir fishery programs have just launched their design initiation efforts. The programs need to accelerate in detailed planning and design activities, and in developing integrated village-level packages. Strengthening of livelihood program design and management will be key to successful resettlement outcome.

32. ***Consensus on agricultural development in the Plateau must be reached quickly to ensure that livelihood targets are met.*** There are differing views and opinions among NTPC and Government staff regarding the approach to take in Nakai Plateau agricultural development. Since its introduction, the newer Direct Mulch Cropping approach has been agreed for agriculture on the 0.66 hectare plots. Technical leadership is urgently required to develop consensus on what the overall approach should be and to accelerate this component of the livelihood program. Meanwhile, the POE and the IFIs have recommended the use of the drawdown areas of the future reservoir for agricultural development. This area has large potential and may be of critical importance during the initial stage after reservoir impoundment, particularly in view of the long period involved to prepare the poor-quality 0.66 ha soil for cultivation. UXO clearance poses the biggest challenge in developing the drawdown areas. NTPC has agreed with the IFIs to carry out a due diligence process to assess the approach to UXO clearance in these areas.

33. ***The pace of Village Forestry Association (VFA) development has increased.*** Efforts have been made to strengthen VFA capacity, with a senior official from the Ministry of Agriculture and Forestry (MAF) seconded as the VFA general manager and an expansion of the management team. NTPC and VFA are drawing up a service agreement that details a program of technical support and the resources required to manage VFA on behalf of members in the near term and to build the capacity required for VFA self-management in the future. Two areas that need particular attention and follow up are: (i) community engagement, ownership, development and required capacity building; and (ii) business planning and its long-term development as a viable and sustainable venture.

34. ***Salvage logging is in progress.*** Reservoir salvage logging operations commenced in mid-October 2006, and at the end of January 2007, approximately 121,760 m³ or 151,520 logs had been harvested. An agreement has been reached with NTPC to allow logging trucks to use the road to Lak Sao at night. The new access road at the southern end of the Plateau is also open and starting to be used. The timber has been sold to a company, but some fraction will be sold back to GOL to be made available for resettlement housing. Operations are being monitored jointly by the Salvage Logging Management Unit and the EMU, and monthly reports are provided to the IFIs. Additional information and feedback is provided through monthly coordination meetings including the WMPA, the Resettlement Management Unit (RMU) and the VFA. Although a very

positive precedent has been set for openness and cooperation in the management of a logging operation in Lao PDR, the POE has emphasized the need to ensure that salvage logging is not used to launder illegal timber from the watershed and to establish full control of the use of the new southern access road. The WB will field a Salvage Logging Review Mission in May 2007.

35. ***Biomass clearance options will be addressed through the NTPC reservoir impoundment study.*** NTPC is recruiting consultants to develop an impoundment strategy for the reservoir, which will address the desirability of options for further biomass clearance following salvage logging operations. The IFIs have provided input to the terms of reference for this work. Harvesting of minor forest products and agricultural use of drawdown areas will contribute to biomass clearance in the reservoir area, although the availability of labor amongst the resettler population may limit the extent of these activities. Given the characteristics of the reservoir, full-scale residual biomass clearance is unlikely to be either feasible or without associated environmental impacts. Therefore, if systematic post-salvage biomass clearance does take place, it is likely to be limited in extent, focused on critical areas and timed as closely as possible to the start of inundation.

36. ***After a slow start, the wildlife program is moving forward.*** The draft final report of the Phase I elephant work confirmed, based on genetic results, the earlier survey findings that the elephant population numbers around 150 animals. The Phase II study, currently being negotiated, will mainly focus on the development of crop protection methods. Meanwhile, Human-Elephant Conflict monitoring has continued under an interim contract, even though it was delayed by the need to restructure the work in response to changes in the agricultural programs on the Plateau. In terms of the rest of the wildlife program, the initial survey and planning phase is well under way, bringing together many of the foremost regional wildlife experts. In addition to the previous fish and aquatic biodiversity surveys, fieldwork has been carried out on birds and small mammals, and additional large mammal, reptile and flora surveys are currently being conducted. The baseline survey report and draft management plan are due by mid-year, but certain urgent management interventions will commence beforehand. The NTPC EMO and WMPA have agreed to joint adaptive management of the wildlife program through periodic review meetings. Moreover, in order to compensate for riparian habitats that will be lost during inundation, the creation of 50-100 small artificial wetlands to the east of the reservoir in the lower Watershed is suggested. These need to be in place over the course of the next year in order to perform a bridging function for wildlife, particularly water birds. Agreement has been reached between the EMO, the WMPA and the WB to develop a process for approving this proposal as it is further developed.

Project Lands

37. ***Issues with compensation payments in the Project Lands remain a concern that must be promptly addressed and better communication of the program is needed.*** Progress has been registered in detailed compensation planning for transmission lines, payment of interim and final compensation, recruitment of technical advisors, and initiation of livelihood activities. However, implementation progress – particularly of the Gnommalat livelihood program – is slow and has experienced difficulties. The following issues in the Project Lands need to be promptly addressed: (i) compensation for crop and land losses within the Right of Way for the improvements of Roads 12 and 8b was not paid as per provisions in the GOL Road Law. The

IFIs have expressed the urgency in rectifying this and have agreed with NTPC and Government that compensation and restored access will be delivered to the affected households by May 31, 2007; (ii) interim compensation for some Project Lands acquisitions has been incorrectly deducted from final compensation payment. NTPC and GOL are in the process of paying back these deductions and this error has been stopped; (iii) the general project entitlement policy for loss of agricultural land needs to be translated into specific entitlement provisions to be delivered for the livelihood restoration of households losing lands in the Gnommalat areas; (iv) compensation for loss of non-timber forest products and timber forest products (NTFP/TFPs) was paid into village bank accounts more than one year ago, but until now the villages have not been able to use the compensation funds. More guidance should be given to the villagers on the most practical and appropriate way to use their compensation funds; and (v) continuous communications with villagers on the implementation of the livelihood program should not be overlooked. Effective communications with the communities regarding entitlements and coordination among the teams implementing the program are issues which have been flagged and are being addressed. These efforts need to be sustained to improve overall performance of the livelihood program for project lands.

38. ***Off-Plateau villages have potential for unanticipated impacts that must be better understood in order to be properly addressed.*** Some villagers in Gnommalat District (off the Plateau) have been using the southern tip of the allocated resettlement areas for NTFP collection and fishery. Full understanding of livelihood activities of non-Plateau villagers is needed to more effectively respond to possible unanticipated impacts. The IFIs have requested NTPC and GOL to update the baseline surveys of livelihood activities in the planned resettlement areas, particularly the VFA areas, by villages off the Plateau. Possible project impacts on such activities need to be identified and assessed; if applicable, mitigation measures need to be developed.

Downstream Areas

39. ***The Downstream program is progressing, but the scale-up needs continuing attention.*** The pilot phase of the Downstream program in 21 villages in Khammouane Province (including one demonstration village, 14 riparian villages and 6 hinterland villages) has progressed well with many lessons learned. The NTPC team has been working in close cooperation with the District Working Groups in the Province. The credit and savings activities have been initiated using the best principles from experience in Lao PDR. Very high repayment performance is reported. Water and sanitation programs and mini-polder construction will begin in the next few months. The program is now well positioned for scale-up with a plan to cover all riparian villages and higher priority hinterland villages in advance of COD, and the remainder of the hinterland villages after COD. According to this current plan, NTPC will initiate activities in 37 additional riparian villages in 2007 and the remaining 35 in 2008. By COD, NTPC expects to cover 92 villages (all 86 riparian plus 6 hinterland villages currently in the pilot package). The remaining hinterland villages will be covered after COD. To support this scale-up, the NTPC team has increased from 5 to 13 technical staff over the past few months. Only the program manager and financial administrator positions remain open. Close attention to the roll-out of the program will be needed over the coming months.

40. ***Furthermore, other aspects of the Downstream program also require close attention.*** Government approval of the implementation plan – taking into consideration IFI comments –

and clarity on certain budgetary issues are urgently needed for the program to move forward in a timely manner. The IFIs will review and provide no-objection to the implementation plan once these steps are completed and Government has approved the program. NTPC and Government have agreed with the IFIs to finalize the implementation plan by May 31, 2007. To avoid confusion or misunderstandings, clarity is required on the extent of the downstream impacts (i.e., accurate number of impacted villages and households); NTPC is expected to develop a note on this (to be included in the implementation plan). Another area that warrants attention is the updating of the socio-economic baseline survey.

41. ***The fishery catch monitoring (FCM) program has been making good progress.*** Collection of baseline data under the FCM program in Khamkeut District has been completed, providing the first series of baseline data for the affected villages downstream of the dam. The baseline data being collected under the program in the XBF are still awaited. These data will update the projected fish losses and will be used to refine the compensation program to adequately cover the estimated losses. The collection of data under the FCM for the watershed (upstream of the dam) was initiated in February 2007.

Watershed

42. ***The WMPA continues to make progress.*** The WMPA is performing well but still faces key challenges. The overall assessment is that the WMPA is continuing the momentum from the last two updates: they have developed a good understanding of the issues and are able to carry out field work to a high standard. However, they still face development challenges. The annual audit, report and work plan were completed on schedule last year. The poor record of quarterly reporting has been recognized and commitments made for improvement are being fulfilled. Early results of biodiversity survey work suggest that populations of tree-living animals may be substantial, but hunting with snares is still severely depleting ground-living wildlife.

43. ***Some specific external threats have also intensified recently.*** Rosewood poaching has grown rapidly in response to very high market prices, and the POE highlighted this as a serious problem. Steps are being taken to address this both by the WMPA and local government, but as noted in the Salvage Logging SC report (see paragraph 39), more coordination among the different agencies is needed. The WMPA has confiscated a significant volume of illegal rosewood timber worth hundreds of thousands of dollars (US) at current market prices, and the POE congratulated them on their efforts. During their last reporting period, from October to December 2006, they seized 379 logs and 109 m³ of sawn timber. Another threat – also raised by the POE – is mining activities, as more than 6 hectares of protected area land have been lost to small-scale gold mining in Khamkeut. There are also continuing concerns that coordination between biodiversity protection and livelihood development activities could be strengthened, and that more technical assistance support is required for supervision of village-based activities. The POE and the WMPA IMA have made recommendations on these issues, including an organizational restructure of the WMPA's technical divisions, and an exchange of land impacted by mining for additional forest to be included within the protected area, but a response is still awaited from the Board of Directors.

IV. CONSULTATIONS AND STAKEHOLDER PARTICIPATION

44. ***Consultations with local communities continue in all project areas; however, increased efforts are needed in the Project Lands.*** The participatory process initiated during project preparation is ongoing as part of the Plateau resettlement program, but the degree of participation varies across components, with greater involvement of villagers in the relocation and agricultural development programs than in community forestry. With respect to the Downstream program, there is active participation from the villagers in the 21 pilot villages. More effective consultations are needed in the Project Lands, particularly to address compensation issues. In addition, interested stakeholders are being encouraged to participate and maintain active dialogue with the project developers, Government and IFIs, through participation in the Annual Stakeholder Forum, briefings on reports by the POE, the IAG and the IFIs, as well as *ad hoc* engagement. Consultations under the various planning and implementation activities have evolved to become sustained weekly and day-to-day engagements between villagers and project staff on the Plateau. While villager participation has been considerable with respect to the agricultural development program, involvement in the management of the VFA is less evident. The WB has commissioned an independent assessment of the current process with the consultant who monitored the earlier consultations (undertaken during project preparation in 2004).

45. ***The project continues to garner high visibility in the international context, and stakeholder participation is continuously encouraged.*** NT2 continues to be a project of high interest in many circles. The project area continues to be visited by media, students, scholars, civil society, parliamentarians, donor agencies and other stakeholder groups. Government and NTPC facilitate these visits and allow access to different project sites. A considerable number of Bangkok and Vientiane-based media attended the last Update press briefing in October 2006, and questions are being received and answered by the IFIs from members of the media, international non-governmental organizations (NGOs) and other interested stakeholders. Moreover the IFIs have been proactively sharing information with the public through a number of modalities (including responses to queries and news stories) and a WB NT2-dedicated website is in place. The WB has strengthened its communications capacity on the ground, and on-going efforts are in place to ensure that the project is implemented in a transparent, open and participatory manner. Government, with support from AfD, is in the process of hiring a Technical Advisor to build capacity in the Department of Energy Promotion and Development in areas of stakeholder consultation and communication. The Advisor is expected to be in place by July 2007.

46. ***The next Annual Stakeholder Forum is planned for end-June 2007.*** The first Annual Stakeholder Forum took place May 17, 2006 and was attended by over 200 people who discussed implementation accomplishments to date and challenges looking forward. The Forum was followed by a visit to the project site on May 18 by over 100 persons from Government, development agencies, media, and civil society. It was hosted by Government in coordination with NTPC and the IFI partners. The workshop provided a good opportunity for a wide range of stakeholders to discuss issues related to resettlement, salvage logging, biodiversity conservation, wildlife management, reservoir and downstream water quality, and revenue management, among others. An “open week” followed the workshop, to which anyone interested in viewing progress on implementation was invited. Government and NTPC will continue to hold the Annual Forum

as well as annual open visits to the site. In addition, *ad hoc* visits by various stakeholders, including media and youth groups, are also organized by Government and NTPC.

47. ***The donor Round Table Process continues to receive a high level of Government commitment.*** The Ninth RTM took place in Vientiane on November 28-29, 2006 and was widely attended by representatives of Government, donors and other stakeholders. The RTM was an opportunity to discuss Government's NSEDP (2006-2010) and support from donor agencies as well as an occasion for the Banks to brief participants on the progress of the NT2 project. An important outcome of the RTM was the signing of the Vientiane Declaration on Aid Effectiveness – signed by Government and 22 development partners – that aims to harmonize donor support in the country. An action plan is expected in May 2007.

V. REPORTING, MONITORING AND OVERSIGHT

48. ***Reporting and disclosure arrangements are working satisfactorily overall.*** Agreed regular reporting by NTPC and Government is taking place, albeit sometimes with delays. Efforts are underway to improve the timeliness of such reporting. Disclosure of project documentation on the part of NTPC and Government has been reasonably effective in disseminating information to stakeholders but should be accelerated with respect to a few key technical documents. Furthermore, the IFIs strongly recommend that analytical studies that can be of use and interest to a wider audience – such as those studies conducted to identify impacts and issues – be publicly disseminated. The IFIs as well as Government and NTPC continue to respond upon receipt to *ad hoc* requests from civil society organizations for additional information on implementation details. The WB NT2 website is updated periodically and provides project information and ongoing updates to the frequently asked questions (FAQ) section.

49. ***Independent monitoring agencies are in place or in advanced stage of procurement.*** In addition to the other three monitoring entities – POE, IAG and the Lenders' Engineer (LE) – the Concession Agreement and the International Development Association (IDA) Development Grant for the Nam Theun 2 Social and Environment Project also require the establishment of IMAs for WMPA, resettlement and environment. The IMA for the WMPA is in place and undertook its first assessment in May 2006. Although there were significant delays in establishing the IMAs for Nakai Resettlement, Project Lands and Environment, arrangements were finalized in January 2007 and all are now in place or in advanced stages of procurement. The IMA for the Downstream program is scheduled to be in place by June 2007. The substantial monitoring and supervision arrangements, including visits by the POE, IAG, the LE, and the IFIs, together with internal monitoring efforts, have significantly compensated for the delays in the IMA recruitment.

50. ***Government oversight efforts have improved considerably but capacity building remains an area of concern.*** Government has made significant efforts to strengthen its project implementation and oversight capacity under the leadership of Deputy Prime Minister and Standing Member of the Government Somsavat Lengsavad. As noted in the findings of the POE's January 2007 visit, the intent of an overarching NT2 Project Committee has been met through the involvement of the Deputy Prime Minister, who has visited the project site multiple

times since September 2006. The Department of Energy Promotion and Development has also been strengthened by adding several senior staff members. The Government Engineer assists the Department in technical supervision of the project. Additional steps by Government have included the appointment in May 2006 of an experienced local specialist to head the RMU, as well as the appointment of a seconded senior forestry staff member from the MAF to head the Nakai VFA. The WB is working to assist Government's capacity development efforts through the third pillar of its Country Assistance Strategy.

51. ***The strengthened IAG has completed its first field visit.*** The IAG has been recently strengthened with the addition of three new members and now consists of five persons. One is replacing a former member who joined the NT2 POE and the others are filling the positions for revenue management and community development/public participation. The new members appointed by the WB President are: (i) Mr. Jacques Gérin; (ii) Mr. Rob Laking; and (iii) Ms. Mary Racelis. They will join Mr. Dick de Zeeuw, who will continue to serve as the Convenor; and Mr. Emil Salim. All five of the IAG members are of international stature and have extensive knowledge of conditions in developing countries and experience with large scale investments in infrastructure. This newly-reconstituted IAG visited the NT2 site on February 4-16, 2007 and briefed the WB, Government, NTPC and Vientiane-based international NGOs on its findings. The IAG noted progress made based on its April 2006 suggestions, including improved oversight arrangements. Its preliminary recommendations point to the challenge of developing sustainable livelihood activities in all project areas, ensuring good communication with communities and ensuring that monitoring standards are maintained while making them more effective. The IAG report is expected to be released in late April 2007.

52. ***The 10th report of the POE was released in October 2006 and the group visited the project site in January/February 2007.*** The POE, based on its August 2006 visit, noted the need for a stronger coordinating body on the Government side – which has been met by the involvement of the Deputy Prime Minister and Standing Member of the Government – and the critical need for improved performance and monitoring of the HCC and other contractors regarding environment and social work. Following its January/February 2007 visit, the POE briefed Government, NTPC, IFIs and Vientiane-based international NGOs on its findings, focusing on the importance of strengthening livelihood activities in all areas of the project. The POE has expressed concern on the development of livelihood activities on the Plateau by the time of impoundment, and suggested the use of the drawdown areas in the reservoir as a way to overcome constraints. The POE also stressed the importance of boosting and accelerating the livelihood restoration program in the Downstream villages, and supported the restructuring envisioned by the WMPA. The POE's next visit is planned for August 2007.

53. ***IFI supervision arrangements are well-coordinated and effective in helping resolve major issues, and co-financing arrangements are working smoothly.*** Project supervision effectiveness has been enhanced; ADB and WB efforts are in close alignment and well-coordinated with those of AfD. Cooperation among the IFIs on joint supervision missions and regular visits of the field-based technical teams continues to work very well. Joint IFI reviews are fielded twice per year, with management mission in March and a technical team mission in November. These are supplemented by regular visits of the field-based technical teams to follow up on issues as they arise, and conduct site visits as needed. The broader group of co-financiers remains in close contact through regular exchanges of information and periodic discussions. The

IAG, in the findings and recommendations from its February 2007 visit, noted this progress and stressed the importance of maintaining the high standard of supervision efforts in an efficient manner .

UPDATE FROM ADB ON THE THEUN-HINBOUN PROJECT

Background

1. A public-private partnership, the Theun-Hinboun Power Company (THPC) Limited, was formed in 1993 to plan, finance, construct, own, and operate the Theun-Hinboun Hydropower Project (the Project) downstream of Nam Theun 2. It started operations on schedule in March 1998. The Project is a trans-basin hydropower scheme diverting the Nam Theun by means of a dam consisting of a combination of radial gates, flap gate, and a weir. The flow is diverted through an underground tunnel to a 210-megawatt surface powerhouse and is discharged to the Nam Hai, a tributary of the Nam Hinboun. An 86-kilometer transmission line to the border at Thakhek allows the export of power to the Electricity Generating Authority of Thailand (EGAT).
2. The Asian Development Bank (ADB) approved a loan of US\$60 million from the Asian Development Fund (ADF) for the Lao People's Democratic Republic (Lao PDR) to implement the first joint-venture hydropower project with foreign investors. Electricité du Laos (EdL), the state-owned power utility, contributed 60 percent of the share capital, and two foreign investors, MDX Lao Public Company Limited and Nordic Hydropower AB, 20 percent each. Assisting the transition to a market economy by supporting such private sector participation, ADB acted as the lead coordination agency for Government's negotiations with the foreign investors and provided legal and financial advice in the form of a technical assistance grant. As a result of significant cost savings in main civil works, mechanical works, and electrical equipment, the Project was completed at a cost of US\$240 million, 11 percent below the appraisal estimate of US\$270 million.
3. THPC and EGAT signed a power purchase agreement (PPA) in 1996 for a guaranteed off take of 95 percent of THPC's power generation, which has ranged between 1,358 and 1,521 gigawatt-hours (GWh) per annum in the last five years; sales to EGAT were about 97 percent of declared availability. It is expected that the power plant will generate on average 275 GWh per annum less when Nam Theun 2 starts impounding its reservoir in June 2008. The PPA between THPC and EGAT is based on the take-or-pay principle, has a term of 25 years from the start of commercial operation, and contains an option for renegotiating the tariff after 10 years. The tariff in the first year of operation was US\$0.0484 per kilowatt-hour, and increased by a fixed rate of 1 percent per annum after 1999. The payment is determined half in US dollars and half in Baht at a fixed exchange rate of US\$1.00 = B25.35. THPC later refinanced its commercial loans aligning the currency profiles of the debt payments with those of the revenues.
4. The Project has achieved its intended purpose. It is currently one of the largest foreign exchange sources in the Lao PDR. THPC's sales revenues increased from US\$42 million in 1998 to a high of US\$57 million in 2005, and are expected to be maintained at about US\$55 million in the future. THPC's financial performance is very good. THPC has a healthy profit and maintains a comfortable debt-servicing capacity. The Project generated a net income of US\$88 million from 2003 to 2005. THPC's dividend payments in the same period amounted to US\$78 million, of which US\$47 million went to EdL. In addition THPC paid about US\$2.8 million in royalties to the Government in 2005. In 2004 THPC started paying taxes. The profit tax payment for 2004 was about US\$3.4 million and about US\$2.9 million for 2005. Revenue sharing arrangements

among the shareholders of THPC is as per the joint venture agreement, i.e., 60 percent for EdL on behalf of the Government and the remaining 40 percent equally shared between the Thai and Nordic investors.

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

Agreed Action Plan to Mitigate the Social and Environmental Impact

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

- ***Community assessment and organization.*** Village development committees (VDCs) have been established and trained in 50 villages (one more than in the previous update). Sample socioeconomic baseline surveys are being carried out in 10 villages as per the targets in the logframe, adopting a livelihood framework to monitor and assess the impact. To date all villages have been visited and VDCs and/or village working groups are being established to follow through with the assessment work.
- ***Social mitigation implementation.*** Savings and credit programmes have been established in 62 villages; 48 livestock groups have also been established, up 5 villages and 21 livestock groups from previous update.
- ***Water supply.*** A total of 95 dug and 44 tube wells (139 in total) have been completed as well as four gravity fed systems and several water pumps for domestic use and gardens, and culverts. No change from previous update except that several wells have become dry, down 11 from last update.

- **Health and sanitation.** Village health volunteers have been trained, and basic medicine kits, mosquito nets, and revolving medicine funds have been provided in 47 villages (up 20). The process is also on-going for the remaining 10 villages. VDCs and/or village working groups are following up on this work.
- **Wild fishpond building.** Six large wild fishponds with good fish yield following the wet season were built at Hinboun area.
- **Savings and credit funds.** These are operating in 62 villages (5 more than in the previous update) with a total Kip value of 2,939 billion (US\$1 = 9600 Kip) of which 1,732 billion has been lent to group members.
- **Gardens.** House gardens have been established in 54 villages (4 more) with participatory land use planning, terracing where appropriate, and planting of fruit trees and vegetables.
- **Other activities.** Other livelihood enhancement activities carried out in several villages include frog rearing, family fish ponds and training for livestock management. Some essential supplies have been provided to several schools. THPC runs a school and a health center adjacent to the power plants that are open to the public in the area.

Further Developments

7. THPC is now finalizing a feasibility study for the Theun Hinboun Extension which the Company expects will be the basis for finalizing the PPA with EGAT in the second quarter of 2008. The expansion project consists in building a dam on the Nam Gnouang, a tributary of the Nam Theun upstream of the Theun Hinboun power intake. The dam will create a reservoir that will regulate the river flows into the Theun Hinboun head pond and increase power output in the dry season. The extension project also includes increasing the installed capacity at the existing power house, and possibly building a small hydropower plant at the new dam. The extension project is scheduled to be commissioned in 2011. THPC informs that the Feasibility Study includes environmental and social safeguard studies compatible with IFI requirements. THPC is also using the results of the 2004 independent review to develop the appropriate mitigation measures of the new extension project. THPC has engaged an expatriate Environmental and Social Manager who initially will be responsible for the execution of the Environmental and Social Management Plan of the new extension project, and who later will integrate the existing work of the existing EMD. Integration of the existing EMD into the Expansion Project's Social and Environmental Division should be completed by the end of 2007.

STATUS OF COMPLEMENTARY INVESTMENT PROJECTS

1. ***The Lao Environment and Social Project (LEnS), a US\$4 million IDA grant, approved by the WB's Board on June 30, 2005, is a complementary activity to the NT2 project to strengthen environmental and social policy and capacity.*** The project seeks to strengthen the ability of institutions and instruments to apply a range of environmental and social management measures related to the approach followed under the NT2 project. In particular, LEnS will: (i) support the implementation of the National Policy on the Environmental and Social Sustainability of the Hydropower Sector in Lao PDR, which drew upon lessons learned during preparation of NT2; (ii) address cumulative impacts of river basin development in the Nam Theun/Nam Kading Basin in accordance with NT2 Government Letter of Implementation Policy (GLIP) commitments; (iii) strengthen the institutions responsible for implementing the recently-enacted Resettlement Decree; and (iv) support specific actions aimed at strengthening the management of protected areas in central Lao other than the NT2 Watershed. The project became effective in mid-April 2006, but the Management Unit was not fully operational until September, following delays in establishment of the parent Environmental Protection Fund and in bringing on board certain key staff. The Resettlement Decree and Environmental Protection Fund were both developed under the recently completed ADB-financed Environment and Social Program Loan (2001 to 2006).

2. Early implementation progress has been slow, mainly due to confusion over implementation arrangements and reporting relationships associated with the establishment of the first financing window within LEnS. Considerable effort has been made recently to clarify the institutional relationships, and it is hoped that this will lay the foundation for more rapid future progress. In the meantime, proposals for three major areas of support – implementation of the hydropower policy, the resettlement decree and river basin management – have been finalized and are under formal review by the Bank task team. In total, over 40 proposals have been submitted to the fund, and 3 smaller proposals (less than US\$10,000) have already been approved. Dates for 7 project covenants have passed, of which 2 have been completed, 2 have been submitted and are under review, and 3 are overdue. Of the overdue covenants, 2 are administrative. The third is the provision of a draft institutional framework for monitoring the implementation of the hydropower policy, which was due by 31st December 2006, but is now expected mid-2007 according to the schedule of the proposal to support this work.

3. ***The IDA Rural Electrification Phase I Project (REP I), approved by the WB's Board on April 27, 2006 and comprising a US\$10 million IDA grant plus a US\$3.75 million GEF grant, will increase rural household access to electricity and improve the sustainability of power programs.*** The rural electrification Adaptable Program Loan (REP) is to be implemented over a six-year period in two phases, with the first phase under implementation since April 2006. The program would provide access to electricity to some 106,000 rural households (Government's connection target for 2006-2010 is about 280,000 households over the program period, to achieve a 70 percent household electrification ratio by 2010); assist Electricité du Laos (EdL) to achieve financial sustainability through tariff reform, improvement of EdL's operational efficiency and reduction of arrears; promote development of the legal, regulatory and institutional framework; encourage other participants in sector development; provide a sound

planning practice and basis for electrification; and increase the efficiency of electricity delivery and consumption.

4. Implementation is under way to increase rural household access to electricity. IDA Grant funded procurement of materials for grid extension has been completed and deliveries of materials are under way. Norwegian Agency for International Development (NORAD) funded procurement of materials for grid extension is under way as scheduled. Achievement of 42,000 household connections by the end of REP I is likely. Procurement of the first batch of off-grid electrification materials – 3,000 solar home systems (SHS) – has been completed. Consumer subscription for the 3,000 SHS has finished, and installation will start immediately once the equipment is delivered. Procurement of the remaining 6,000 SHS may be started earlier than originally scheduled. Preparation of off-grid electrification of 1,000 households with diversified technologies (village hydro and biomass schemes) is underway. Achievement of off-grid electrification for 10,000 households by the end of REP I is likely.

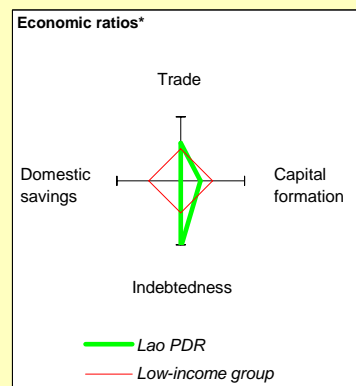
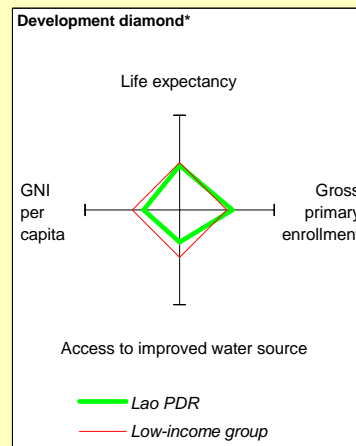
5. Improvements in power sector financial performance are being made. Tariff adjustment during 2005-2007 has progressed faster than scheduled towards the intermediary target of achieving cost recovery tariff levels and final target of generating a 4 percent financial return on EdL's re-valued assets. Collection of arrears from Government agencies has made remarkable progress, albeit slower than scheduled. Reduction of EdL's system loss is highly satisfactory, as it has been reduced from 19.32 percent in 2005 to about 18.3 percent by the end of September 2006 (17 percent targeted by the end of REP I) due to much more investment by EdL than committed counterpart funds for REP I (US\$13.5 million in 2006 *versus* US\$1 million for loss reduction over the entire REP I duration). IDA Grant funded international consultants will be on board soon to assist EdL in reduction of system losses. Other technical assistance activities planned for REP I are under preparation or procurement as scheduled.

6. ***A proposed IDA Khammouane Rural Livelihoods project would broaden the positive benefits of NT2 across the whole province.*** The proposed project is to follow upon formal adoption of a Khammouane Development Report and Strategy to serve as the basis for better coordinating and targeting overall development assistance in the province. This work is being led by the Office of the Governor and includes close work with the RMU in order to leverage opportunities related to NT2. While the drafting of the report and strategy were completed by the Province in November 2006, the review and approval from central ministries has delayed finalization by three months so far. Preparation of the follow-on livelihoods project which is intended to support the strategic priorities, as well as strengthen provincial level capacity to better coordinate development support in the province, is contingent on finalization of the strategy. At the same time, the Office of the Governor, working in partnership with the Bank's task team, the United Nations Development Programme and SNV (Netherlands Development Organization), have identified likely areas of work with an emphasis on complementing the proposed NT2 Downstream livelihoods program both in terms of extending livelihood activities to those villages in Khammouane not covered by the NT2-related program, as well as through activities which leverage the NT2-related investments to further strengthen livelihoods in the Downstream villages.

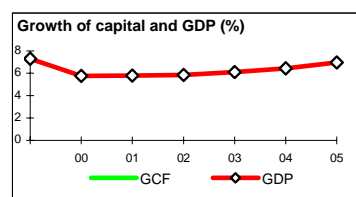
Lao PDR at a glance

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POVERTY and SOCIAL	Lao PDR	East Asia & Pacific	Low-income		
2005					
Population, mid-year (millions)	5.9	1,885	2,353		
GNI per capita (Atlas method, US\$)	440	1,627	580		
GNI (Atlas method, US\$ billions)	2.6	3,067	1,364		
Average annual growth, 1999-05					
Population (%)	2.3	0.9	1.9		
Labor force (%)	3.0	1.3	2.3		
Most recent estimate (latest year available, 1999-05)					
Poverty (% of population below national poverty line)	..	..	..
Urban population (% of total population)	21	41	30		
Life expectancy at birth (years)	55	70	59		
Infant mortality (per 1,000 live births)	65	29	80		
Child malnutrition (% of children under 5)	40	15	39		
Access to an improved water source (% of population)	51	79	75		
Literacy (% of population age 15+)	69	91	62		
Gross primary enrollment (% of school-age population)	116	115	104		
Male	124	116	110		
Female	109	114	99		
KEY ECONOMIC RATIOS and LONG-TERM TRENDS					
	1985	1995	2004	2005	
GDP (US\$ billions)	2.4	1.8	2.5	2.9	
Gross capital formation/GDP	7.0	..	17.4	16.7	
Exports of goods and services/GDP	2.4	23.2	24.8	27.6	
Gross domestic savings/GDP	1.3	
Gross national savings/GDP	1.3	15.2	2.9	1.5	
Current account balance/GDP	-4.1	-10.8	-14.5	-15.1	
Interest payments/GDP	0.0	0.3	0.5	..	
Total debt/GDP	26.1	122.8	82.7	..	
Total debt service/exports	12.0	6.2	8.5	..	
Present value of debt/GDP	62.3	..	
Present value of debt/exports	248.7	..	
	1985-95	1995-05	2004	2005	2005-09
<i>(average annual growth)</i>					
GDP	5.6	6.1	6.4	7.0	6.5
GDP per capita	2.9	3.6	4.0	4.6	4.3
Exports of goods and services

**STRUCTURE of the ECONOMY**

	1985	1995	2004	2005
<i>(% of GDP)</i>				
Agriculture	..	55.7	47.1	46.0
Industry	..	19.2	27.1	27.9
Manufacturing	..	14.3	20.4	..
Services	..	25.1	25.8	26.1
Household final consumption expenditure	90.0	..	..	..
General gov't final consumption expenditure	8.7	..	..	..
Imports of goods and services	5.8	37.3	32.6	31.4
	1985-95	1995-05	2004	2005
<i>(average annual growth)</i>				
Agriculture	4.0	4.4	2.9	2.6
Industry	11.3	10.3	11.7	16.0
Manufacturing	13.1	9.8	13.3	6.7
Services	4.9	6.3	7.5	5.6
Household final consumption expenditure	..	..	..	..
General gov't final consumption expenditure	..	..	..	..
Gross capital formation	..	..	..	..
Imports of goods and services	..	..	..	..



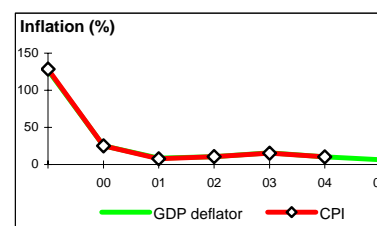
Note: 2005 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

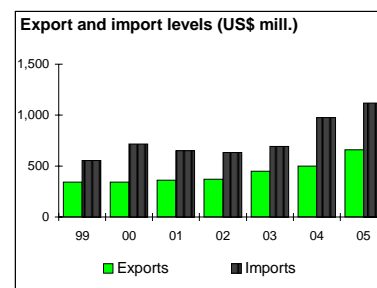
PRICES and GOVERNMENT FINANCE

	1985	1995	2004	2005
Domestic prices				
<i>(% change)</i>				
Consumer prices	..	19.6	10.5	..
Implicit GDP deflator	64.8	19.7	10.3	6.5
Government finance				
<i>(% of GDP, includes current grants)</i>				
Current revenue	..	16.5	11.7	12.0
Current budget balance	..	6.5	3.7	2.8
Overall surplus/deficit	..	-3.9	-3.3	-3.4



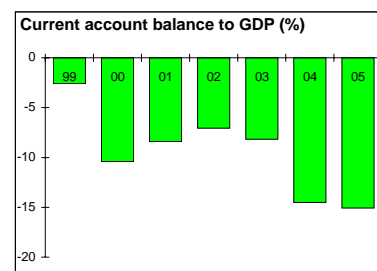
TRADE

	1985	1995	2004	2005
<i>(US\$ millions)</i>				
Total exports (fob)	..	313	500	659
Electricity	..	24	105	110
Mining	58	216
Manufactures	..	15	14	18
Total imports (cif)	..	589	977	1,116
Food	..	49	90	102
Fuel and energy	..	22	62	76
Capital goods	..	201	490	565
Export price index (2000=100)	..	99	108	128
Import price index (2000=100)	..	99	120	100
Terms of trade (2000=100)	..	101	90	128



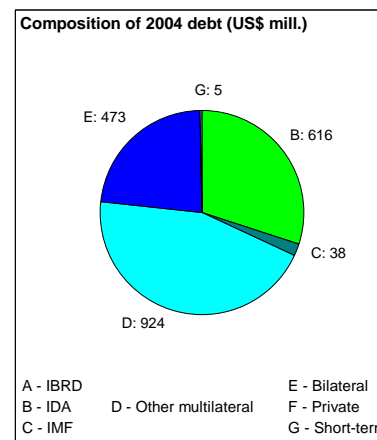
BALANCE of PAYMENTS

	1985	1995	2004	2005
<i>(US\$ millions)</i>				
Exports of goods and services	58	410	687	874
Imports of goods and services	138	658	1,033	1,191
Resource balance	-80	-249	-346	-316
Net income	-18	-7	-101	-207
Net current transfers	..	64	85	93
Current account balance	-98	-191	-361	-430
Financing items (net)	118	206	391	451
Changes in net reserves	-21	-15	-30	-21
Memo:				
Reserves including gold (US\$ millions)	..	..	227	226
Conversion rate (DEC, local/US\$)	45.0	804.7	10,670.5	10,591.0



EXTERNAL DEBT and RESOURCE FLOWS

	1985	1995	2004	2005
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	619	2,165	2,056	..
IBRD	0	0	0	0
IDA	27	285	616	598
Total debt service	7	26	53	..
IBRD	0	0	0	0
IDA	0	3	13	14
Composition of net resource flows				
Official grants	15	130	114	..
Official creditors	37	75	50	..
Private creditors	0	0	0	..
Foreign direct investment (net inflows)	-2	95	17	..
Portfolio equity (net inflows)	0	0	0	..
World Bank program				
Commitments	0	19	28	..
Disbursements	0	28	37	35
Principal repayments	0	1	8	9
Net flows	0	27	29	26
Interest payments	0	2	5	5
Net transfers	0	25	24	21



Note: This table was produced from the Development Economics LDB database.

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