VOLUME 4 – CHAPTER 1 PROJECT DESCRIPTION

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1 PROJECT DESCRIPTION

1.1 THE NT2 PROJECT

A full Project Description is provided in Volume 1, Chapter 1 of the SDP, and Chapter 2 of the EAMP.

The Nam Theun 2 (NT2) hydroelectric scheme in Khammouane, Bolikhamxay and Savannakhet Provinces in central Laos involves constructing a dam on the Nam Theun River, and the creation of a 450 square kilometre reservoir on the Nakai Plateau (See figure 1-1). Water from the reservoir will be diverted into a tunnel excavated in Phu Ark escarpment, and drop about 350 meters to the turbines located in a Powerhouse at the foot of the escarpment. Immediatly below the Powerhosue, a Regulating Pond/Dam will regulate flows into the Xe Bangfai (XBF) River through a 27 kilometre, purpose-built downstream channel. The Project will also construct Transmission Lines to Thakhek and the Thai border at Savannakhet build or upgrade 150 km. of roads, and establish a number of rock quarries and spoil deposit sites.

The NT2 Project is a Build Own Operate Transfer (BOOT) scheme to be developed by the Nam Theun 2 Power Company (NTPC), a limited company registered under Lao law. Major shareholders are the Lao Government (25% equity), EDF International (35% equity), EGCO of Thailand (25% equity), and Italian-Thai Development Public Company (25% equity).

NT2 will generate an estimated USD 235 million gross annual revenues from the sale of electricity to Thailand. During the 25 year concession period, GOL will receive an average of USD 80 million a year from taxes, royalties and dividends, a large proportion of which will be used for poverty alleviation programs nationwide. NT2 will also fund the management of the globally important Nakai Nam Theun Protected Area which forms the watershed area of the NT2 Project.

1.2 THE NEED FOR RESETTLEMENT AND DEVELOPMENT

The construction and operation of the NT2 Project will result in impacts, both beneficial and adverse, to the biophysical, socio-economic and cultural environments of the Project Area. As the NTPC and GOL are committed to meeting the World Bank's and Asian Development Banks economic, social and environmental standards (as set out in the Safeguard Policies described Appendix B of Volume 1) the Project has identified three main areas of social impact in which it will either mitigate, or will ensure effective livelihood restoration and/or compensation for persons (Project Affected Persons – PAPs) impacted by the Project, as follows:

i. Reservoir Area on the Nakai Plateau

Prior to reservoir inundation, about 1,127 households will be relocated from 17 plateau villages. 15 will be relocated within the plateau itself, on the southern edge of the new reservoir, and 2 relocated some 25 kms to the north. A variety of agriculture, forestry and fishery livelihood programmes will be supported and developed for these affected persons.

ii. Project (construction) Lands

The acquisition of Project Lands for the construction of Project components will result in the loss of land and assets, and also some disturbance or temporary land acquisition, and all impacted person will receive compensation by way of cash (for those experiencing small impacts), in-kind (land for land etc) or livelihood restoration.

iii. Downstream (of the Power Station) and the XBF

Communities downstream of the Power Station, along the XBF (and to some extent on the Nam Kathang/Nam Gnom), and downstream of the Nam Theun Dam, and in other down or upstream areas, will experience varying degrees of impact on their livelihoods and infrastructure due to changes in the hydrological regime, water quality and river-bank erosion patterns.

Vietnam Dam Site Nakai Reservoir **Power Station** Mekong River **Thailand** Thakhek Vietnam Thailand

Figure 1-1: Project Location & Key Infrastructure

Lao PDR

1.3 THE PROJECT LANDS COMPONENT OF THE NT2 PROJECT

This Project Lands Resettlement Plan has been prepared to address the social and economic impacts of the need to transfer land use rights to the NTPC (and its contractors) for the construction and operation of the NT2 Project. Thus, 66 parcels of land will be leased to the NTPC on which to build project facilities, and such land has been termed "Project Lands". These Project Lands include areas required for the construction of the Nakai Dam, the Nakai saddle dams, the headrace channel, the power conduit intake structure, the Powerhouse, the Regulating Pond and Dam, Residence Nam Theun, the proposed quarry areas, the construction work camps, as well as corridors for the 500 kV transmission line, the 115 kV transmission line, the downstream channel, and for all roads to be upgraded or constructed. The location of these Project Lands areas is shown in Figure 1-2 and Figure 1-3.

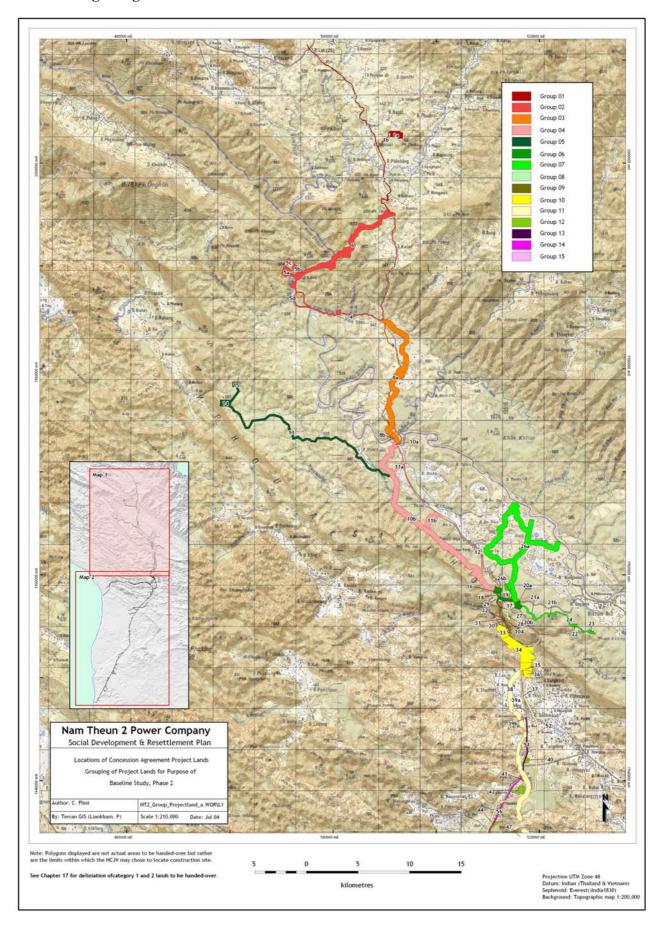
The acquisition and either temporary or permanent use of land for construction and operation will result in impacts including disturbance, and temporary or permanent loss of land and assets, all of which will require compensation to those AP's/PAP's who may be owners and/or users of the impacted land and assets. Compensation will include asset purchase or cash compensation, direct replacement of land or asset in another location, or restoration of livelihoods or incomes impacted.

While not providing a list of these Project Lands required, the Concession Agreement of October 2002 (Annexes A, B and C) does provide maps of Project Lands granted by the GOL to the NTPC in which to choose to construct and locate its facilities. GIS analysis of these maps reveals that the total area granted as either Category 1 or Category 2 land is about 11,000 ha. However, much of this area, and many of the Project Lands map in the CA, are actually corridors within which the Company may choose to build infrastructure or have right of way access.

Thus, while the actual area required for construction is somewhat less (than the CA Maps), the precise location and requirement of land will only be known progressively, up until Financial Close (May 2005). It is envisaged that as the exact requirement (in terms of location, and dimension) for each Project Land is finalised, an updated resettlement plan or a series of plans, with includes land acquisition and compensation agreements with PAP's will be developed and reviewed by the Company and the GOL, and then submitted to the IFIs, after which formal approval and payment of compensation or implementation of livelihood rehabilitation programs will be undertaken.

In addition, not all Project Lands will impact villagers or communities. Of the 66 Project Lands, there are 38 which have PAP impacts, and 28 which have no impacts on PAPs (these either impacting GOL forests, or are merely upgrading of existing roads). Of the 38 with PAP impacts, 13 have medium to high impact and 18 have low impacts on PAP. A further 8 have low to medium impacts of the Resettlement Area forests.

Figure 1-2: Map of Project Land Areas (not including Transmission Lines), Subject to Revision as Detailed Design Progresses.



Group 03 Group 12 Nam Theun 2 Power Company Social Development & Resettlement Plan Concession Agreement Project Lands Grouped According to Loacation Author: C. Flint 510000 mE

Figure 1-3: Map of Transmission Line Project Lands, Subject to Revision as Design Progresses.

1.4 PRINCIPLES, OBJECTIVES AND LAYOUT OF PLAN

This Project Lands Resettlement Plan reflects IFIs policy on involuntary resettlement, which has the following objectives:

- (i) to avoid involuntary resettlement wherever feasible;
- (ii) to minimize resettlement where population displacement is unavoidable by choosing alternative viable project options; and
- (iii) where involuntary resettlement is unavoidable, to ensure that affected people receive assistance, preferably under the project, so that they will be at least as well off as they would have been in the absence of the project.

Where involuntary resettlement is unavoidable, the policy is designed to include any resulting losses in project budgets. The policy treats involuntary resettlement as a development opportunity and allows planners to manage impoverishment risks and turn the people dispossessed or displaced into project beneficiaries, particularly the poor and vulnerable, who may be disproportionately affected by resettlement losses¹.

The NT2 Project's approach to the acquisition of land and assets under Project Lands, and the drafting and implementation of this Resettlement Plan has relied on the following principles:

- Acquisition of land and other assets, and the resettlement of people will be minimized as much as possible²; and all viable alternative project designs will be explored to reduce unnecessary land acquisition or resettlement;
- Where it is not feasible to avoid land acquisition or resettlement, activities will be conceived and
 executed as sustainable development programs, providing sufficient investment resources to enable
 the persons displaced by the project to share in project benefits. Displaced persons will be
 meaningfully consulted and have opportunities to participate in planning and implementing
 resettlement programs.
- Affected or displaced persons will be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

According to the ADB³, a full resettlement plan should address the following issues:

- organizational responsibilities;
- community participation and disclosure arrangements;
- findings of the socio-economic survey and social and gender analysis;
- legal framework, including eligibility criteria and an entitlement matrix;
- mechanisms for resolution of conflicts and appeals procedures;
- identification of alternative sites and selection;
- inventory, valuation of, and compensation for, lost assets;
- landownership, tenure, acquisition, and transfer;
- access to training, employment, and credit;
- shelter, infrastructure, and social services;
- environmental protection and management;

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¹ ADB OM Section F2/BP issued on 29 October 2003, page 2.

² Such minimization has already been seen in the case of Phou Pakho quarry (PL1) and Residence Nam Theun (PL36), two Project Lands part of the PCA (Preliminary Construction Activities). In these areas, the contractors have significantly decreased the areas they require, in comparison to both the Concession Agreement areas and to the HC's original plans for land requirement. The reason for such a decrease in the area required was to minimize impacts on local villagers land and assets. This minimization of land required can be effected for a significant number of the Project Lands. Transmission Lines and access roads are also being aligned to avoid residential areas and productive lands

³ ADB OM on Involuntary Resettlement (OM Section F2/OP, issued on 29 October 2003), page 6.

- monitoring and evaluation;
- a detailed cost estimate with budget provisions; and
- an implementation schedule, showing how activities will be scheduled with time-bound actions in coordination with the civil works.

This Project Land Resettlement Plan has thus been drafted to comply with these requirements.
