

CHAPTER - 5

LEGAL FRAMEWORK

5. LEGAL FRAMEWORK

5.1. REVIEW OF LAWS AND REGULATIONS

NTEC carried out a review of Lao PDR law relevant to Involuntary Resettlement. This is summarized below, as well as some of the observations by the ADB sponsored MAF Nam Ngum Watershed Management Study.¹

The legal context in the Lao PDR has been changing rapidly over the last few years. A new constitution was introduced in 1991, forestry and water resource laws in 1996 and land and electricity laws in 1997. This legislation provides a legal foundation for the consideration of resettlement.²

An overview of the pertinent articles contained in the above mentioned legislation is provided below. Of particular interest is Article 28 of the Water Resources Law, which states that in the case of hydroelectric projects, the owners shall provide appropriate livelihoods for the resettled population and pay for this out of project funds. The Electricity Act further states that licensees shall pay for any damage to private and/or public properties or rights caused by the project.³

(1) THE CONSTITUTION (AUGUST 14, 1991)

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| Article 8: | All ethnic groups have the right to protect, preserve and promote their fine customs and culture. All acts of division and discrimination among ethnic groups are prohibited. |
| Article 13: | The economic system objectives are the expansion of production and to transform the subsistence economy into a commodities economy. |
| Article 14: | The State protects and promotes all forms of State collective and individual ownership. |
| Article 15: | As for the land which is owned by the national community, the State ensures the right to use, transfer, and inherit it in accordance with law. |
| Article 17: | All citizens must protect the environment and natural resources: land, underground, forests, fauna, water sources and atmosphere. |
| Article 22: | Lao citizens are all equal before the law. |

(2) LAW ON WATER AND WATER RESOURCES, NO. 005 (NOVEMBER 11, 1996)

The law determines the necessary principles, rules and measures related to the administration, exploitation, use and development of water and water resources in the Lao PDR. Articles 17-19 are the requirements for construction of medium and large scale reservoirs for electrical power generation and other purposes – approval,

¹ BCEOM 1999.

² NTEC 1998, RAP. p. 5-2

registration, signed agreements. These include feasibility studies and environmental and social impact assessments.

Article 25: The Government promotes the development and use of water resources in small, medium and large scale energy production from water sources with such potential. The use of water resources shall consider its potentials and impacts.

In building a hydropower dam, consideration shall be given to the preservation of the sources of water, forests, and the environment, flood protection, water supply, irrigation, water transport, fishing and fisheries, aquatic life and others.

Article 28: When resettlement is necessary from the area and vicinity of water sources development projects, project owners shall provide assistance in providing appropriate shelters and livelihoods for the resettled population. The funds used to finance resettlement, assistance or compensation to the population shall be included in the project's investment.

Article 25 requires contribution of funds for the quality maintenance of water sources and water resources by those conducting water resource development activities. Requires preservation of water sources, forests and environment, including impacts on fisheries, flooding and irrigation resulting from hydroelectric power dam construction.⁴

Article 28 establishes the legal obligation to resettle and compensate persons involuntarily displaced by the construction of hydropower dams and reservoir impoundments.⁵

(3) DECREE ON ENVIRONMENTAL PROTECTION (DRAFT 1996)

Article 2: Environment refers to all nature occurring and man made, directly and indirectly related to humans' living conditions, their existence and development, their customs, culture and heritage.

Article 23: Development projects with medium scale investment and above (e.g., hydropower, roads, bridges, mineral exploitation, factories, tourist sites, and tree exploitation) shall require studies and the submission of environmental impact assessment reports as provided by the regulations. The central level environment management agency (STENO) shall review such reports and submit them to the Government for approval. No development project may operate without a certificate of approval of environmental impact assessment.

(4) THE LAND LAW (MAY 31, 1997)

Article 3: The Lao PDR land is the property of the national community, and individuals are assigned to effectively use the land. Individuals may not treat land as a tradable commodity.

Article 5: The State protects the legal rights and benefits of those who have effectively received the right to use land, including the right to transfer it.

Article 6: Individuals...have the duty to preserve land in good condition.

Article 17: The State may authorize individuals to use agriculture land:

- For growing rice and raising aquatic animals not to exceed two hectares per one laborer in a family
- For fruit orchards and vegetable farming not to exceed three hectares, respectively, per one laborer in a family

Article 18: The district...may grant the right to use agricultural land within its administration...

Article 21: The State authorizes individuals to use forest lands (defoliated or degraded) not to exceed three hectares per one laborer in a family.

Article 22: The district...may grant the right to use forest land within its administration...

Article 63: The right of an individual to use land shall terminate when the State takes back the land in the public interest.

³ NTEC 1998, RAP, p. 5-2

⁴ BCEOM, 1999, pp. 1-2

⁵ BCEOM, 1999, pp. 1-2.

Article 70: When it is necessary to use an individual's land in the public interest, the State must make appropriate compensation for damages.

Article 71: In determining damages, there must be a Committee comprised of representatives of interested parties to determine the value of the damages.

The law includes elements related to watershed management, such as erosion protection (article 6) and land allocation and tenure rights. Land categories are established including agricultural land, forestry land, construction, access, easement and other land uses (Chapter II). Rights to habitation are guaranteed for multi-ethnic people (Article 3). Tenure rights for possession, use, fruit, transfer (restricted to developed land) and inheritance are also guaranteed (Article 44). Concessionaire use is protected under the law, and a means for land titling and certification provided.⁶

The Land Act of 1992 stipulates that people deprived from their land are entitled to compensation, and it, as well as the constitution, also recognizes customary land use rights.⁷ The World Bank and ADB's resettlement policies similarly recognize customary land rights. Since in rural areas like those in the Nam Ngiep Reservoir Area there are no land titles, identification of properties as well as of customary land use has to be established for and with each family prior to compensation. This will also be necessary for communal use of natural resources, as ADB policies recognize these as eligible for compensation too.

In line with the WB and ADB policies, resettlement is not, however, to be viewed as a simple compensation for land and other properties but is considered as an opportunity for wider regional socioeconomic development. Hydropower projects must not only generate additional revenue for the Government but also direct benefits for the local population, for those displaced by the project, and for resettlement host villages.

(5) THE ELECTRICITY LAW NO. 02-97 NA (EFFECTIVE AUGUST 29, 1997)

The law requires a license for the generation and transmission of electricity. Article 14.2 states that "the investor shall submit an environmental impact evaluation which shall include the estimated costs of potential damages and relocation of local residents who may be affected as a result of such electricity production project." Article 18.7 states that "the licensee shall pay for damages to the environment, living conditions and properties of residents, or compensate for costs of relocation of residents."⁸

Requires hydropower projects over 2,000kW provide full scale environmental and social assessment prior to approval (Article 14). Article 43 (1) duty of MIH to propagate a strategic plan related to the development of electricity enterprises and protection of the environment.⁹

⁶ BCEOM, 1999, p 4

⁷ James R. Chamberlain, et al. 1996. *Nam Theun 2 Project Area Socio-Economic and Cultural Survey*. Vientiane: Care International. July 30.

⁸ NTEC, 1998, p. 5-5

⁹ BCEOM, 1999, p 8

(6) PRESERVATION OF CULTURAL HERITAGE

Notice No. 943, implanting Article 19 of the Constitution of the Lao PDR, Decrees No. 99, 174, 194 of the Prime Minister of the Lao PDR (19 December 1992, 13 December 1993 and 12 November 1994 respectively) covers preservation of historical sites, traditional and artistic heritage, traditional architecture and places of worship (more than 50 years old). The regulations prohibit removal, destruction or alteration of these items without authorization of the GOL. It is proposed that objects, sites and structures of significance affected by the Project will be managed under the RAP, as is done for the NT2.¹⁰

(7) THE FORESTRY LAW, NO. 004 (OCTOBER 11, 1996)

The NT2 RAP has implications beyond the actual Project if it becomes a model for involuntary resettlement within the Lao PDR and perhaps internationally. A key aspect of this model is the use of community managed forests in upland areas, which could for instance become an alternative to moving ethnic peoples from upland areas to lowland regions.¹¹ For this reason, the NT2 RAP paid close attention to the Forestry Law.

- Article 5: Individuals and organizations shall be entitled to possess and use trees, natural forests and forest land only when authorized by the authoritative agencies.
- Article 7: Individuals and organizations having received forest and forest land allocations from the State for their preservation and management shall be entitled to compensation and interest, such as the use of wood, gathering of forest produce, etc.
- Article 13: The State assigns the use of degraded forest land or bald land to individuals and organizations in accordance to their labor and financial capacity for forestation or revival and to individuals for an area not exceeding three hectares per laborer in the family.
- Article 14: Where necessary for the public interest, forests and forest land may be used for other purposes, subject to prior approval from the competent authorities.
- Article 16: Forest in the Lao PDR are classified into the following five categories:
1. Protected Forests
 2. Reserve Forests
 3. Production Forests
 4. Regeneration Forests
 5. Degraded Forests or Bald Land
- Article 30: Traditional use of forest and forest land refers to the long-standing use of forest, forest land and forest produce as acknowledged by the society or law, which includes non-restricted wood collecting for fencing, firewood, forest produce gathering, hunting and fishing of non-restricted species for family consumption, and other traditional uses. Such traditional use shall avoid causing damage to the forests or forest resources, and shall avoid prejudicing the interest of individuals or organizations. The traditional use of forests, forest land and forest produces shall abide by the village forest and forest land regulations.
- Article 48: The right to possess and use forests and forest land is acquired through transfer, handover, inheritance.
- Article 50: Grant of rights to possess and use forest and forest land is decided by the concerned agencies with authority in allocation of forest and forest land for long term and stable possession and use by individuals and organizations based on contracts and specific regulations.
- Article 51: The right to possess forest and forest land is the right to preserve and use the received forests and forest land for a purpose to meet the requirements for persons enjoying the rights of possession and use.

¹⁰ NTEC, 1998, pp. 5-4

¹¹ NTEC, 1998, p. ES-9

Article 59. The forest and forestry operations management agencies include the Ministry of Agriculture and Forestry, the Provincial/Municipal Agriculture-Forestry Services, the District Agriculture-Forestry Offices and the Village administrative authorities.

This law provides the basis to formulate management and use plans. It also allows conversion in the public interest and after approval by responsible authorities. For 100-10,000ha, approval of the Government is necessary, while the National Assembly must approve conversion of more than 10,000ha. A conversion fee is charged, and land reclamation and tree planting provided as a compensating measure.¹²

For a livelihood model based on forestry, the NT2 proposes to classify most of the forest land in its resettlement area as Production Forests under Article 16 of the Forest Law, with some areas proposed as a Wildlife Corridor classified under Law as Protected or Reserve Forests.¹³

Within the resettlement area, some areas containing forests on slopes greater than 25 degrees may also be classified as Protected Forests with limited utilization of forest products but no logging or other significant physical disturbance.

Within the Production Forests in the proposed NT2 resettlement area, there is land currently classified as Production Forest, yet with characteristics that may classify it as Degraded Forests or Bald Land. This may be used for forest plantations or could be re-classified as agricultural land for resettlement and designated under the Customary Use provision in the Law (Article 30). Some of this forestland could also be re-classified as Regeneration Forest, which could be selected for natural regeneration and enrichment planting.

5.2. DRAFT NATIONAL POLICY ON RESETTLEMENT

NTEC's examination of the relevant laws and decrees for preparing a Project resettlement policy indicated that the Lao people have certain basic rights relative to resettlement. Among these the right to receive compensation for land withdrawn by the State is paramount.¹⁴

However, while compensation is an important factor in instances that call for resettlement, it is not the only factor. Successful resettlement requires that detailed plans are prepared in advance and that such plans are based on a general set of rules that would apply to the preparation and implementation of plans.

The "Draft National Resettlement Policy for Major Projects in the Lao PDR" prepared on behalf of GOL by NTEC and the NT2 Resettlement Committee is such a set of rules. A first draft of this policy, formulated by the Chairman of the NT2 Resettlement Committee, was discussed at the NT2 Resettlement Policy Workshop in Thakhek in September 1996, attended by more than forty national, provincial, and district government officials and representatives from other organizations. The NT2

¹² BCEOM, 1999, p 5

¹³ NTEC, 1998, p. 5-3

¹⁴ NTEC, 1998, p. 5-5

Resettlement Committee organized the workshop; subsequently, changes and suggestions resulting from the participants were incorporated into a second draft of the policy.¹⁵

The second draft was reviewed by a World Bank mission in February 1997 and in March 1997 by the NT2 Study of Alternatives. On March 4 1997, the draft policy was the subject of a Vientiane workshop of 32 government officials from a range of ministries. On March 31, 1997, the draft policy was explained and discussed at the Resettlement Action Plan Information Briefing Session in Vientiane. The comments and suggestions on the second draft thus obtained were taken into account by the Resettlement Committee in the preparation of the draft included in the draft RAP of May 1997.

The draft RAP (including the draft national resettlement policy) was the subject of a public consultation workshop in Vientiane in early June 1997. Subsequently, comments on the draft policy were received from the Panel of Experts and the World Bank. Consideration of these comments is reflected in the Draft National Resettlement Policy included in Appendix. GOL is of the opinion that adoption of the national policy should wait until experience has been gained with the implementation of the NT2 Resettlement Policy. However, the policy can be a model for hydro projects within the Lao PDR that wish to meet the standards of international good practice, such as the NNPP. The NT2's own resettlement policy was developed in parallel with the draft national policy. It has been undertaken in large measure by the NT2 Resettlement Committee, which was set up by GOL in 1995.

Following is the text of the *Draft National Resettlement Policy for Major Projects in the Lao PDR* and the Draft Regulations under the *National Resettlement Policy for Major Projects in Lao PDR* drafted by NTEC:

The resettlement policy would be applicable to major projects in Lao PDR, to be used as reference for planning purposes, for implementation of resettlement activities, for compensation for any loss that a project can cause the affected persons, and for the social and economic rehabilitation of the affected persons.

Table 5.1 Definitions of Terms

Terms	Definition of Terms
(1) Resettlement	Refers to (i) the involuntary physical or socio-economic displacement of project affected persons caused by a project, and (ii) the compensation, relocation and rehabilitation measures to mitigate the effects of displacement.
(2) Project Affected Persons	Refers to any person whose livelihood or standard of living is adversely affected through loss of land, housing, other assets, income or access to services as a consequence of the implementation of a development project.
(3) Involuntary	Refers to the fact that the project cannot be executed without the resettlement of the affected persons. (Voluntary resettlement can occur when families decide, for their own reasons, to move.
(4) Development Projects	Refers to investment projects aimed at providing infrastructure and/or productive assets, or projects aimed at protecting natural resources. In Lao PDR, these projects at the present time usually involve financing from out-of-country sources.
(5) Major Projects	Refers to projects under this policy with more than one hundred (100) affected families.
(6) Rehabilitation	Refers to measures aimed at reestablishment of household economic production systems and livelihoods.
(7) Relocation	Refers to the physical move from one place of residence to another.

¹⁵ NTEC, 1998, p. 5-5.

Terms	Definition of Terms
(8) Compensation	Refers to the payment in cash or kind to replace losses of land, housing, income and other assets caused by a project.
(9) Replacement Cost	Refers to the cost of actually replacing land, housing and other assets that have been lost, with land, housing and other assets of equal value, productivity and use.

ARTICLE 1. OBJECTIVES OF THE POLICY

- 1.1 The objective of the resettlement policy is to ensure that the population to be resettled materially improve its standard of living after resettlement.
- 1.2 The policy is to ensure that those compensated under the policy are compensated adequately.
- 1.3 The policy sets out the principles for compensation and rehabilitation for those people who will be resettled as a result of a project, or who may suffer a loss of any kind as a consequence of the project.
- 1.4 The implementation program for resettlement and the entitlements must be determined specifically for each individual project in accordance with this policy and must be adapted to the real circumstance of a particular region or to a particular ethnic group.

ARTICLE 2. LEGAL FRAMEWORK

- 2.1 The following laws and decrees provide the legal framework for the resettlement policy.
 - (i) The Constitution of the Lao People's Democratic Republic (August 14, 1991)
 - (ii) The Forestry Law, No. 004 (October 11, 1996)
 - (iii) The Law on Water and Water Resources, No. 005 (November 11, 1996)
 - (iv) Decree on Environmental Protection (Draft 1996)
 - (v) The Land Law (March 31, 1997)
 - (vi) The Electricity Law (August 29, 1997)
- 2.2 The Resettlement policy does not contract any clause of the national laws and decrees.

Where the law does not clearly determine any compensation policy, the project will assume responsibilities with respect to the affected persons or the responsibility will be borne by a specifically assigned State Authority.

ARTICLE 3. PRINCIPLES OF THE POLICY

3.1 The Project Design

The Project design must endeavor to avoid or minimize involuntary resettlement

and must endeavor to avoid or minimize negative effects to the environment and to the social and economic condition of the people.

3.2 The Impact Assessment

The impact assessment must be performed in accordance with national standards and international guidelines.

3.3 Public Consultation and Participation

The affected persons are to take part in public consultation and are to participate in the decision process on resettlement activities and on compensation entitlements prior to the implementation of the project.

3.4 Policy for Ethnic and Vulnerable Persons

The policy requires the application of special measures for ethnic minorities, persons in poor health, old people and other vulnerable groups. There must be independent measures to provide opportunities to assist them to take care of their needs and to foster self-reliance.

3.5 Compensation for Loss at Replacement Cost

Project affected persons must be compensated for losses of replacement cost. The losses could be: houses, buildings, land, agricultural crops, fruit trees, irrigation systems, wells, and other assets and income. All losses are subject to adequate compensation at replacement costs.

3.6 Principles for Compensation

The principles for compensation are the following:

- (i) All affected persons, housing, land, and other assets registered at the time of the population survey and asset inventory, and all who can demonstrate a loss, have the right to adequate compensation for loss and to income restoration in conformity with these principles.
- (ii) Compensation for affected houses, other structures, and for land loss must be at replacement cost.
- (iii) The replacement of housing plots, housing and agricultural land must be of acceptable standard, use and value to the satisfaction of the affected owner.
- (iv) Where relocation is required, the transition period should be as short as possible. The affected person must receive land as compensation prior to relocation, although under special circumstances cash may substitute for land.
- (v) Prior to the approval of the resettlement program, public consultation must be carried out with the affected persons to ascertain their opinions.
- (vi) Prior to settling into new resettlement areas, infrastructure and services must be replaced to a level of service higher than before.
- (vii) Material and tools to be used at the new site or for the new occupation, or for

rehabilitation, must be supplied in a timely manner.

- (viii) If compensation alone is not adequate to improve the livelihood of affected persons, additional rehabilitation measures must be developed for this purpose.

ARTICLE 4. RIGHTS OF COMPENSATION

Based on the compensation principles as described in article 3.6, the following provisions are made:

- 4.1 The determination of replacement cost of land must take into account the market value in the locality at the time of acquisition.
- 4.2 The owner must have legal title issued by the local authority or proof of residency.
- 4.3 In case the project causes loss exceeding 25% of the whole asset or will make the remaining asset useless or ineffective, the owner then has the right to hand the whole asset to the project and can ask for full compensation.
- 4.4 Project affected persons who sustain land loss have the right to ask for land as replacement. In case where the land loss is building land, the affected person can ask for an equivalent land area as replacement. In case where the land loss is agricultural land, the affected person can ask for an equivalent land area of equivalent productivity as replacement. In special circumstances, cash may be provided instead of replacement land.
- 4.5 The compensation for housing and other structures must be based on its replacement cost at the time of resettlement. Construction material cost and labor cost at the time of the resettlement must be applied to assess the replacement cost of the affected housing and structures. There will be no deduction for depreciation. The owner is in charge of dismantling the affected housing and will still be the owner of all materials. The transportation of these materials to the new resettlement area is the responsibility of the project. The provision of materials and the construction of the new house are the responsibility of the project. The participation by the owner in the construction of the new house will be paid for on the basis of wage labor.
- 4.6 The compensation for all kinds of farm produce must be based on local market prices in the year the compensation payment is made.
- 4.7 Those sustaining lost wages from a project are entitled to payment equivalent to the local daily labor rate for a period of time equivalent to the one during which wages are lost.
- 4.8 Rehabilitation of life to a level better than before will be determined on the basis of results gathered from consultation conducted with affected persons.
- 4.9 The project must give first priority to employing affected person in employment opportunities in the project area. The project must pay appropriate wages to

those so employed.

- 4.10 Loss of traditional rights of usage, such as collection of forest products, access to grazing, riverine fisheries, etc., will be recognized in the determination of compensation.
- 4.11 Disturbance fees can be paid in cases where no assets are acquired.

ARTICLE 5. FINANCIAL RESOURCES AND BUDGET

- 5.1 Each resettlement program will need financial resources to buy land, to compensate loss, and to provide support during rehabilitation of the affected persons. A detailed budget estimate must be prepared showing itemized categories of compensation, relocation and rehabilitation costs.
- 5.2 Settlement program, including contingencies, has been determined; the sources of funds for the program must be identified and secured.
- 5.3 The owner of the project is responsible for bearing all resettlement cost unless other arrangements have been agreed to.
- 5.4 The project will be responsible for the correct and efficient management of the budget.

ARTICLE 6. MANAGEMENT OF RESETTLEMENT

- 6.1 At the project level, a resettlement unit must efficiently and promptly support the design, planning, and implementation of a resettlement plan for the compensation and rehabilitation of the affected persons. No resettlement may proceed until a resettlement plan has been prepared, and has been approved by the relevant authorities.
- 6.2 At the national level, the government may establish a National Resettlement Committee (NRC) and a supporting technical office to assist Ministries in matters of resettlement policy and planning. The NRC would report to the State Planning Committee (SPC), and would be responsible for the review of resettlement plans prepared for major projects under this policy. A Resettlement Support Unit (RSU), and the NRC, shall advise, train, and assist Ministry, Provincial, District, and individual project personnel concerning the preparation and implementation of resettlement plans and shall support the NRC as required.
- 6.3 Resettlement planning and implementation responsibilities at the project level are as follows:
 - (i) *Ministry of Agriculture and Forestry* will be responsible for projects for resettlement of people out of national protected forests, catchment areas, irrigation reservoirs, and areas reserved for large plantation and livestock projects.

- (ii) *Ministry of Industry and Handicrafts* will be responsible for projects for resettlement of people out of areas for mineral exploration, areas for hydropower projects, for transmission lines and for all types of industrial factories.
 - (iii) *The Ministry of Communications, Transport, Post and Construction* will be responsible for projects for resettlement of people out of areas for railway, road, airport, port, bus terminal and bridge infrastructure.
 - (iv) *The Ministry for Information and Culture* will be responsible for projects for resettlement of people from national tourist areas, artifact areas, historical areas and pre-historical areas.
- 6.4 Other Ministries and other Organizations may be involved in supporting capacities for the planning and implementation of resettlement activities sponsored by the above Ministries.

ARTICLE 7. IMPLEMENTATION OF THE POLICY

- 7.1 All impacts resulting from a project that affects persons is the responsibility of the project. Its mitigative measures should be solved in cooperation with National, Provincial and local authorities and organizations.
- 7.2 The project will provide resources for resettlement and compensation for all loss to the affected persons in accordance with Article 4 (Rights of Compensation) and in consultation with the authorities and affected persons.
- 7.3 The authorities at the district level and at the village level have the right to discuss with the project the compensation policy for affected persons living within their area.
- 7.4 Monitoring will be carried out to ensure that the resettlement implementation is successful.
- 7.5 Persons that may wish to undertake new methods and economic activities in farming, forestry and industry will be provided with training and skills so they can increase their incomes. New activities will only be introduced after they have been shown to be appropriate and worthwhile.
- 7.6 The resettlement plan must be based on an accurate inventory of the people and assets affected.
- 7.7 Under this Policy, the NRC may from time to time issue regulations in order to provide guidelines for the implementation of the policy; regulations are to be considered an integral part of the policy.

5.3. DRAFT REGULATIONS UNDER NATIONAL RESETTLEMENT POLICY FOR MAJOR PROJECTS IN LAO PDR

REGULATION 1. STATISTICAL REFERENCE WORK

1.1 Population Survey and Registration

Specific surveys in each project area must determine the numbers of households and persons that will be affected by the implementation of the project. The survey should also compile an inventory of losses that would be incurred by each affected household.

The surveys and the registrations on loss must contain the following data:

- (i) Quantity, type and area of the house which will be affected
- (ii) Quantity, type and area of the building land which will be lost
- (iii) Quantity, type and area of the agricultural land which will be affected
- (iv) Quantity, type and area of other assets which will be affected by the project
- (v) Quantity, type and area of the fruit trees which will be affected

1.2 Socio-Economic Survey

In addition to survey and registration of properties that will be affected by the project there must be a socio-economic survey of a sample of the affected people. Its results will give details on household composition, occupation and household income. It will provide valuable data for the assessment of their future occupation in the new resettlement areas, and the rehabilitation that will be required to improve their standard of living.

REGULATION 2. IMPLEMENTATION SCHEDULE

- 2.1 The resettlement plan must define the implementation period.
- 2.2 The public consultation with the affected persons on resettlement, new livelihood matters and compensation must be conducted during the preparation of the resettlement plan.
- 2.3 Relocation of the affected population must take place according to a schedule agreed to by most of the affected people.
- 2.4 Right-of-way fees or fees for disturbance must be paid prior to the construction start.

REGULATION 3. PROCEDURE FOR RESOLUTION OF DISPUTES

- 3.1 Each project must establish a grievance office where they will collect the complaints from affected people. The project must consider suggestions and settle all complaints from the people in their new resettlement areas, from landowners and from others.
- 3.2 If problems occur during resettlement they must be considered and must be resolved. The project must make a serious attempt at resolving any problems. If problems are legally related and cannot easily be settled, the local preliminary court must examine them.
- 3.3 Disputes related to the evaluation of assets such as houses, fruit trees, crops, etc. must be settled by an independent committee which will be comprised of:
 - (i) Representative of the local authority
 - (ii) Representative of the mass organization
 - (iii) Representative of other organization
- 3.4 The project will not have a representative on the committee but it has the duty to cooperate on a transparent basis with the committee and to provide all information as required by the committee.

REGULATION 4. MONITORING

- 4.1 The project should regularly follow up on the implementation of the resettlement plan and the compensation paid.
- 4.2 The project should set up procedures to monitor the implementation and effectiveness of the resettlement works.
- 4.3 Monitoring should start at implementation and should continue until at least one year after resettlement is completed.
- 4.4 Performance standards and indicators should be set for each activity; the progress of each activity and the improvements in the lives of the affected population should be measured. The resettlement committee, the project and its financing agencies should receive the monitoring reports and take any corrective action required.

CHAPTER - 6

RESETTLEMENT ACTION PLAN

6. RESETTLEMENT ACTION PLAN

6.1 RESETTLEMENT OBJECTIVES AND PRINCIPLES

The resettlement objectives of the RAP as it is developed will be in accordance with the *Draft National Resettlement Policy For Major Projects In the Lao PDR*, as developed through preparation of the NT2 resettlement policy, since this policy has been reviewed by the World Bank and found in accordance with international best practice.

Main objectives of this policy document are to ensure that:

- The population to be resettled materially improves its standard of living after resettlement and that
- Those compensated under the policy are compensated adequately.

These policy objectives of the NT2 are in line with the recent Workshop on Large Dams in Gland, Switzerland under the sponsorship of the IUCN and World Bank, that proposed that mere 'restoration' of income and living standards as currently stipulated in World Bank and ADB policies is inadequate. Indeed, in a majority of cases the mere restoration can be expected to increase impoverishment through landlessness, joblessness, homelessness, marginalization, morbidity, food insecurity, loss of access to common property assets, and social disarticulation (disintegration of social support networks).¹ Reasons supporting this are:

- *Nature of the Resettlement Process.* During the years immediately following resettlement, and in some cases during the years immediately preceding removal, income levels tend to drop.
- *Long Planning Horizon for Major Dams.* During that time period, the people, government agencies and private-sector investors will undertake less development than is the case in adjacent non-project areas. For that reason, resettler living standards will already be lower before removal than they would have been without the project. This is particularly relevant to the PDR, where the FARDs are often in the very same valleys that are to be inundated.
- *Loss of Farmland and Common Property Resources.* Where farmland and access to common property resources are lost or reduced, expenses following resettlement are apt to be greater than before. Increased costs are especially a problem for resettlers who have to purchase food supplies that they were able to produce previously, or where less fertile soils require the purchase of such inputs as improved seed and fertilizers, or where new production techniques require loans

¹ IUCN and World Bank, 1997, *Large Dams: Learning from the Past, Looking at the Future*, Workshop Proceedings, Gland, Switzerland, April 11-12.

that lead to indebtedness. Note that this has been a problem identified by the UNDP for even 'voluntary' resettlement in the Lao PDR.

- *Tendency to Underestimate Incomes.* Even where pre-resettlement surveys are undertaken -- and adequate ones are rare -- there is a general tendency to underestimate people's incomes at that time.
- *Negative Health Impacts and Sociocultural Trauma.* Merely restoring living standards does not compensate resettlers for the negative health impacts and the sociocultural trauma a majority can be expected to suffer. What is involved are the wider aspects of homelessness and social disarticulation. There is no way that social cost-benefit analyses can accurately reflect the hardships involved. Hence the need to at least partially compensate for them by raising living standards.
- *Assumption of 'No Development'.* Assuming that peoples' living standards have not been worsened by a project also assumes that no development among those people would have occurred without the project during the years that mere restoration requires. In some cases that would be an unjustified assumption.

With the establishment of the World Commission on Dams following the Gland Workshop, it is highly likely that this emphasis on 'improving' the living standards of people affected by hydropower projects will become increasingly the norm. It is already and has been for some time the law in the Peoples Republic of China, which is known to have one of the more effective policies on involuntary resettlement in the world.

A summary of the *NNHP RAP Principles And Objectives* is as follows:

- Involuntary displacement will be avoided or minimized wherever possible by exploring all viable alternative project design and location.
- Project affected people will be compensated and resettled so as to improve their living standards or at least to maintain their pre project level living standards.
- Land acquisition and resettlement will be planned and implemented in such a way as to cause least possible amount of social, cultural and economic disruption.
- Project affected persons will be (i) compensated for their losses at full replacement cost (either in cash or in replacement house/land) prior to relocation, (ii) assisted in the transfer of residence and during the transition period at the relocation site and (iii) assisted in their efforts to improve their living standards at the new location.
- Existing cultural and religious practices will be respected and, to the maximum extent practical, preserved.
- Special measures will be incorporated in the resettlement plan to protect socially and economically vulnerable groups such as indigenous peoples, women headed families children and aged people without support structures and people living in extreme poverty.
- All persons residing cultivating or making a living within the areas acquired for project prior to a formally recognized cut off date will be considered as a project affected person and will be entitled to resettlement. Lack of legal titles to the land a person is cultivating or to the place residence will not be a bar to resettlement

entitlements.

- The previous level of community services and resources will be maintained or improved after resettlement.
- A project affected person will not be dispossessed of his/her property nor displaced from his/her place of residence or employment without payment of full compensation and/or without making arrangements for relocation and rehabilitation.
- The entire cost of resettlement program will be considered as an integral part of the project cost and accordingly will be budgeted in annual and overall implementation plans of the project.
- The resettlement programs will be planned and implemented with the consent and agreement of the affected people and will encourage their active participation.
- There will be effective mechanisms for hearing and resolving grievances during the implementation of resettlement programs.

6.2 IDENTIFICATION OF POTENTIAL RESETTLEMENT SITES

6.2.1 SURVEY WORKS

STS Consultants carried out a preliminary inventory of 16 potential resettlement sites from mid July to mid August 1999. Most of the sites were recommended through interviews with officials of Xieng Khouang and Bolikhamsay Provinces, of Borikhan District within Bolikhamsay Province, and of the Xaysomboon Special Zone. An assessment of the sites was also made through use of aerial photos (1:30,000 taken in 1998) for identifying land use at each site. However, at this stage no ground truthing has been carried out. The photo interpretation was backed up with topographic maps at a 1:100,000, 1:50,000 and 1:25,000 scale, depending on availability, to study the topographic conditions. Whenever it is accessible, site visits were undertaken in order to obtain a general assessment of the population carrying capacity of the proposed site.

The prioritizing of resettlement areas was based on the cultural preference of rural Laotians for rice cultivation. Resettled households are assumed to need 1 ha of paddy field and 0.5 ha for housing, garden and other facilities. This is about 15% higher for land holding than that currently prevailing in the Reservoir Area, 0.83 ha/hh for irrigated and rainfed paddy (0.18 ha/hh for wet season irrigated paddy). STS Consultants generally assumed that about 50% of relatively flat land classified as 'unstocked' forest would be suitable for paddy development. The several sites are presented in an overview map (also shown in Figure 6.15) and in separate maps in *Annex 4*.

6.2.2 THE 3 RESETTLEMENT SITES WITH BEST POTENTIAL FOR IRRIGATED PADDY DEVELOPMENT

The preliminary inventory of potential resettlement sites for the NNHP has indicated that out of 16 sites proposed by Government officials, resettlement might be possible in 14 sites. Three of the sites were judged to be most attractive -- Sites D1 and D2 in the Bolikhan District, Bolikhamsay Province and XK3 in Kham District, Xieng Khouang Province -- because they:

- Have greater potential for paddy development;
- Are located close to the administration center and near populated areas that could provide other earning opportunities;
- Are within the Focal Area for Rural Development (FARD) of either the concerned District or Province; and
- Have been suggested by local authorities.

The Resettlement Site Inventory is a desk study, and its conclusions are preliminary and indicative. However, it has provided basic information that will be valuable in guiding further studies. Future study should include the fieldwork to confirm the suitability in particular of the 3 most attractive sites, as well as the 11 other sites that may provide some resettlement potential. The scope of study for future investigations should include, *inter alia*,

- Technical investigation of soil suitability and water availability for agricultural development, particularly of irrigation development;
- The prevailing socio-economic, tenure and cultural conditions of the proposed sites; and
- Other feasibility of additional livelihood packages at the sites.

All three of the sites most highly recommended by the Study Team are FARDs, the areas that GOL has made priority zones for rural development and for resettlement of highland peoples to more centralized locations.

The site (XK3) in Kham District of Xieng Khouang Province alone could, authorities believe, absorb 1,300 households, or approximately nearly 8,000 people. Most village households in the Upper Reservoir surveyed came from Kham District, Xieng Khouang Province (37 households). Xieng Khouang Province is the origin of most Upper Reservoir households, some 67 or about 38% of all households surveyed in the Reservoir Area and about 50% of all the Upper Reservoir Households. In the Upper Reservoir, also, most of the respond households said they would prefer Xieng Khouang Province as a resettlement destination. So from the standpoint of origin of households, the site may have considerable potential, especially since it has good accessibility, being situated on the National Road 4, the future National Road 1 that will run through the Upper Reservoir Area.

The problem may come from the site being an irrigation project that will be completed by the end of the year 2000. It may fill up with resettlers. On the other hand, it would be possible for GOL to 'reserve' a number of places for the NNPP resettlers. In this

case, the authorities could plant fruit orchards and put the future paddy fields under sugar cane production with local villagers hired to take care of these crops some years in advance of the proposed resettlement, as is done in similar situations in the Peoples Republic of China. All together, these sites have some 13,000 ha of unstocked forest that may provide both paddy crop development and other upland tree crop possibilities.

Only 5 households of the 179 households surveyed in the Reservoir Area came from Bolikhan District (4 Lao Soung in the Lower Reservoir and 1 Lao Loum household in the Upper Reservoir), where the other two recommended resettlement sites are located. Another Lao Soung household from the Lower Reservoir came from Pakxan District. However, Bolikhamsay is the second most popular resettlement destination after Xieng Khouang Province among households in the Upper Reservoir, so from this standpoint, these two sites (D1 and D2) in Bolixhamxay Province may also hold real possibilities as resettlement destinations for the NNHP Reservoir Area households.

Questions about Site D1 with the potential for taking 1,500 households, or approximately 9,000 population, may revolve around the number of villages already using the proposed area. What compensation might be required to mitigate their loss of the unstocked forest area they are presumably already using. Developing this area into paddy fields may benefit both host and resettled communities, however, to an extent that would easily make up this loss.

Accessibility is the potential drawback with Site D2, having the capacity to take a possible 450 households or 2,700 population. The feasibility of putting an access road to the site will have to be assessed. The site appears to be not far from National Road 4, so this may not be a difficult obstacle to overcome.

6.2.3 THE 4 RESETTLEMENT SITES CLOSEST TO THE RESERVOIR

Four of the resettlement sites identified by the STS inventory survey are close to the Reservoir Area. STS ranked them low on the basis of their potential for paddy development, which is limited, and for lack of accessibility. However, these may become strategic locations if National Roads 1 and 5 are built by the time that resettlement is necessary. These highways will link the Upper Reservoir Area at Taviang with markets in Vietnam, Thailand and China for the first time. Sites XSB2 will be along National Road 5 linking Thailand with Vietnam, and XSB3, and XSB4 will be along the National Road 1 linking China with Cambodia.

The latter road is already under construction with ADB financing, and AusAid has provided bridges for the highway within Thathom District. XSB2 and XSB4 will also be receiving rural electrification an ADB financed 115 kV 158 km Transmission Line from the Nam Leuk Hydropower Station that through the Taviang Sub District to Phonsavan in Xieng Khouang Province, expected to be in place by the end of the year 2000. XSB2 has the potential for paddy development for 45 families, according to the STS survey. The other two sites in the Upper Reservoir area also should be looked at closely for any possible paddy development as a back up to other livelihood packages that may provide commercially viable income generation schemes. Reservoir fisheries

particularly are a possibility, but so are also commercial and agro forestry, dairy schemes based on reservoir drawdown pasture development, and eco-tourism.

Although perhaps not as strategically located as the Upper Reservoir sites, the resettlement site identified at XSB1 near the Lower Reservoir communities may also provide similar income possibilities based on its proximity to the reservoir as those mentioned above. There are plans to extend the Maung Hom Highway from Highway 13 South via Hom District Headquarters, which already reaches the Lower Reservoir Area, northward to link up with National Road 5 and eastward to link to the upgraded National Road 1. During the last public consultation workshop there, residents of the Lower Reservoir expressed an interest in remaining in the same area, and XSB1 needs to be examined carefully for whatever potential it may have as a resettlement site. This and the other sites discussed above have approximately 2,300 ha of unstocked forest, which although maybe not of high potential for paddy, may have potential for upland tree orchards to produce commercially marketable produce, as well as eco-tourism associated with a proposed elephant reserve. Production of fish feed and other spin offs from reservoir fisheries are also livelihood potential development packages.²

6.2.4 THE 5 RESETTLEMENT SITES IN BOLIKHAMSAY PROVINCE

While the 2 recommended sites of D1 and D2 together have a potential for absorbing 2,000 households into paddy crop production, the other 5 sites that STS Consultants identified in Bolikhamsay Province should not be ignored. Together they have the potential capacity for absorbing nearly 400 households, 2,400 persons, or nearly half the population requiring resettlement from the NNHP reservoir.

Sites D4 and D5 are just below the proposed dam and reregulating pond and accessible by the project's access road and National Road 4. They together have an estimated potential for absorbing about 100 households, perhaps coming from the Lower Reservoir, into paddy production. With site D3 near B. Muang Mai having room to absorb a possible 20 households, these 3 sites all represent potential resettlement along National Road 4, which runs parallel with the Nam Ngiep River and may benefit from lift irrigation made possible by a year round higher river level due to the proposed dam.

The other 2 potential resettlement sites in Bolikhamsay Province are sites D6 and D7. Together they have a potential for absorbing 195 households, or approximately 1,170 persons. They do not appear to be as centrally located as the other Bolikhamsay sites, but D6 is a FARD, which makes it a high priority area for government investment, and site D7 is near National Road 4 and may be more accessible as the GOL's program of road infrastructure upgrading is implemented. This branch of National Road 4, which will link National Road 13 South, and the newly upgraded National Road 1 is due for upgrading in the next few years.

² Vientiane Times, August 24-26, 1999, P. 11. *Promoting agriculture in Bolikhamsay*. By Phonekeo Vorakhoun. Describes a recent animal feed plant opening in Bolikhan District, using similar technology to fish feed. Also the introduction of orange tree orchards.

6.2.5 THE 2 RESETTLEMENT SITES IN KHOUN DISTRICT, XIENG KHOUANG PROVINCE

These two resettlement sites, XK1 and XK2 may not have the potential for paddy development as other sites or the strategic location of those near the Reservoir Area. However, they are along the upgraded National Road 1 currently under construction with ADB financing, and they are not far from Phonsavon, the headquarters of Xieng Khouang Province. Together they have some 6,000 ha of unstocked forest that might be commercially developed.

6.2.6 THE 2 RESETTLEMENT SITES DISCOUNTED FROM CONSIDERATION

The STS Consultants Resettlement Site Inventory discounted Sites XSB 5 and XSB6 as being too remote and having a lack of suitable land for paddy development. This seems like a probably accurate assessment of XSB5, since it does appear to be in a relatively remote area. However, XSB6 is actually on the proposed NNHP reservoir, and it is likely that a north south road will connect it in the future from the Muang Hom highway to National Road 5. In any case, it – as with the sites listed above as being close to the reservoir – should be considered for reservoir fisheries development, dairy using drawdown pasture lands and for horticultural crops. The site has a shoreline with the reservoir and over 1,000 hectares of unstocked forest.

It will probably be a good idea to include all 16 identified sites in public consultation with Reservoir Area communities, to receive the input of both the affected people and local officials into the relative merits of the various sites prior to fully discounting any of them.

Table 6.1: The 3 Resettlement Sites with Best Potential for Development of Paddy Land

(1) TE (2) DISTRICT	(3) PROVINCE	(4) RICE PADDY	(5) SWIDDEN (RAY)		(7) GRASS**	(9) TOTAL PRODUCTIVE LAND		(11) WATER***	(13) DEVELOPMENT POTENTIAL(ha)
			(6) FOREST	(8) UNSTOCKED FOREST		(10) VILLAGE AREA	(12) TOTAL		

Σ	(1) (2) (3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	SITE DESCRIPTION	
													1.	XX3 Xham Xieng Khouang
2.	D1 Borikhanh Bolikhamsay	819	160	437	0	3,183	4,599	80	64	4,743	2,250	1,500	Proposed by District authorities. Focal Area for Rural Development (FARD). On Nam Xan River. 5 Lao Loum villages. Good road. Flat to gently undulated terrain with several swamp and natural ponds. EL.158-160m. Unstocked forests relatively flat and can be developed as paddy land. Water sources are Nam Xan and Houay Sa that flows into Nam Kading and natural ponds such as Nong Veng, Nong Ka and Nong Koy.	
3.	D2 Borikhanh Bolikhamsay	94	92	3,064	0	1,638	4,888	52	0	4,940	800	450	Proposed by District authorities. FARD. Located Ban Thasi along the Nam Lat. Accessed by boat. The major impediment is the accessibility to the site. Flat to undulated terrain. EL.220-240m. Nam Lat flowing through the area and Nam Mang could be used as main sources for irrigation development, either by pumping from Nam Mang for area in the northwestern part or by diversion weir on Nam Hat and Nam Lat for other areas.	
TOTAL		2,899	1,433	7,504	0	13,095	24,931	358	135	25,424	7,050	3,250	*Includes Bamboo, Scrub Forest **Savannah	

Table 6.2: The 4 Resettlement Sites Near Reservoir Area, Potential for Fisheries, Agro Forestry

Σ	(1) (2) (3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	SITE DESCRIPTION	
													1.	XSB2 Thathom Xaysomboon
2.	XSB1 Hom Xaysomboon	90	62	1,033	14	1,144	2,343	29	1	2,373	0	0	Located at about 10 km east of Hom District Headquarters. Road access good, same as to Lower Reservoir. Mountainous area with narrow valleys. Areas suitable for rice cultivation already used except small area of few hectares. EL.560-580m. Water from Nam Ngok, flowing through area. Unlikely suitable for the resettlement based on agricultural development because of topography condition and the limitation of flat land. Possible development for floating net aquaculture and agro-forestry due to location near reservoir.	
3.	XSB3 Thathom Xaysomboon	0	0	1,159	0	1,007	2,166	0	0	2,166	0	0	Located 24 kms from Taviani, along Nam Che River. Access by difficult dry season road. But will be part of National Road 1, upgraded from National Road 4. Rural electrification planned for area by an ADB financed 115 KV 158 km Transmission Line. Topography mountainous. EL.570 to 600m. Water supply from Nam Ngiep and Nam Che, a tributary. Unlikely suitable for resettlement based on agricultural development because lack of land. Possible development for floating net aquaculture and agro-forestry due to location near reservoir.	
4.	XSB4 Thathom Xaysomboon	0	5	112	6	109	232	0.1	3	235.1	0	0	Located on of Nam Ngiep's right bank, 22 km upstream of Taviani Sub-District headquarters at B. Dong. Possible development for floating net aquaculture and agro-forestry due to location near reservoir. Accessible by in dry season by National Road No. 4, to be upgraded to National Road 1, also by boat on Nam Ngiep River. Rural electrification planned for area by an ADB financed 115 KV 158 km Transmission Line from the Nam Leuk Hydropower Station that through the Taviani Sub District to Phonsavan in Xieng Khouang Province. 560 to 600 MSL. Main water source is Nam Ngiep River. Unlikely suitable for resettlement based on agricultural development due to lack of suitable land. Possible development for floating net aquaculture and agro-forestry due to location near reservoir.	
TOTAL		90	99	3,738	1,568	2,340	7,885	63	4	7,952	80	45	*Includes Bamboo, Scrub Forest **Savannah	

Table 6.3: The 5 Resettlement Sites in Bolikhamsay Province

Σ	(1) (2) (3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	SITE DESCRIPTION	
													1.	D3 Borikhanh Bolikhamsay
2.	D4 Borikhanh Bolikhamsay	11	122	8,689	0	4,136	12,958	1	0	12,959	30	20	Close to B. Hatsoup and about 18 km to the Borikhanh District Headquarters. Accessed by small, dry season latente road and also by boat on the Nam Ngiep River. Only a small part of the area has a flat terrain. 160-180 MSL. Main source of water Nam Ngiep River and Houay Kingtuak, a tributary. Whole area covered by forest except few spots of paddy fields, less than 1%. Unstocked forest area of 4,135 ha is very undulated and hilly, cannot be used for paddy field development except the area on the left bank of Nam Sao, just upstream of the confluence with Nam Ngiep. About 30 ha unstocked area could be developed as paddy.	
3.	D5 Borikhanh Bolikhamsay	0	12	165	3	137	317	0	0	317	70	45	Located in Houay Soup valley on right of Nam Ngiep, between damsite and B. Hatkham, about 22 km from Borikhanh District Headquarters. Accessed by road in dry season and by boat on Nam Ngiep River. Flat to undulated terrain. EL.160-190m. Water from Nam Ngiep and Houay Soup that flows through middle of area. 50% of the unstocked forest area able to be developed as paddy, 70 ha.	
4.	D6 Borikhanh Bolikhamsay	230	297	1,048	0	1,867	3,442	81	0	3,523	200	130	Located in the Ban Muang Bo, about 32-km from Borikhanh District Headquarters. Accessed by dry season road. Flat to undulated terrain. EL.180-200m. Water from Houay Xao flowing through the middle of area. Unstocked forest on left bank of Nam Sao and between Nam Sao and Nam Pou could be developed as paddy.	
5.	D7 Borikhanh Bolikhamsay	353	38	2,869	0	995	4,255	125	0	4,380	100	65	Located at B Muanghuang, about 25 km from Borikhanh District Headquarters. Access by dry season road, close to National Road 4. Flat to undulated terrain. EL.180-200m. Water from Houay Huang flowing through area into Nam Xan. About 100 hectares of unstocked forest area on the left bank of Houay Huang, downstream of Muang Huang District could be developed as paddy.	
TOTAL		594	484	12,866	3	7,895	21,842	207	0	22,049	590	390	*Includes Bamboo, Scrub Forest **Savannah	

Table 6.4: The 2 Resettlement Sites in Khoum District, Xieng Khouang Province, Potential for Upland Crops

(1) TE	(2) DISTRICT	(3) PROVINCE	(4) RICE PADDY	(5) SWIDDEN (RAY)	(6) FOREST	(7) GRASS**	(8) UNSTOCKED FOREST*	(9) TOTAL PRODUCTIVE LAND	(10) VILLAGE AREA	(11) TOTAL	(12) WATER***	(13) DEVELOPMENT POTENTIAL(ha)	(14) POTENTIAL(HH)
Σ													
1.	XK1 Khoum Xieng Khouang		1154	135	159	1,115	5,126	7,689	87	13	7,789	0	0
2.	XK2 Khoum Xieng Khouang		38	12	421	690	1,177	2,338	4	0	2,342	0	0
TOTAL			1,192	147	580	1,805	6,303	10,027	91	152	10,131	0	0

SITE DESCRIPTION

Located in B. Xang 8 km from Khoum District Headquarters, close to a densely populated area. Flat to undulated terrain. EL.1,060~1,080m. Main water source is Nam Ngiou that flows through the area. Local population has already used most of land suitable for agricultural development. Unstocked forest, although very large is hilly terrain. Potential for resettlement based on lowland rice production, as main occupation for resettled people, is limited. Unstocked area might be suitable for upland crops.

Accessed from Phonhsavanh by the National Road No.4. The road condition is good. Hilly and mountainous. Most unstocked forest area is hilly and thus is not suitable for paddy field development except for other upland crops. EL.1300m to1350m. Water from Nam Phouan, which flows through area. Unstocked area might be suitable for upland crops.

*Includes Bamboo, Scrub Forest **Savannah

Table 6.5: The 2 Resettlement Sites Discounted from Consideration

(1) TE	(2) DISTRICT	(3) PROVINCE	(4) RICE PADDY	(5) SWIDDEN (RAY)	(6) FOREST	(7) GRASS**	(8) UNSTOCKED FOREST*	(9) TOTAL PRODUCTIVE LAND	(10) VILLAGE AREA	(11) TOTAL	(12) WATER***	(13) DEVELOPMENT POTENTIAL(ha)	(14) POTENTIAL(HH)
Σ													
1.	XSB5 Xaysomboon Xaysomboon		0	0	542	1,583	2,405	4,530	0	0	4,530	0	0
2.	XSB6 Hom Xaysomboon		0	52	3,668	1,190	1,146	6,056	59	0	6,115	0	0
TOTAL			0	52	4,210	2,773	3,551	10,586	59	0	10,645	0	0

*Includes Bamboo, Scrub Forest **Savannah

6.3 HOUSE DEMOLITION AND REHABILITATION

Resettlers will be allowed to keep the construction materials from their old houses and will receive assistance in transporting these, if they wish, to the new resettlement sites. The Project itself will be responsible for building new homes for the resettlers, based on extensive public consultations with them as to their preferences. The village layout and its public facilities will also be a subject of public consultation. This was done in NT2 using a 'dream' house and village approach, where sketches were shown to and discussed with the assembled communities to obtain their inputs on design, and lessons from this exercise will be incorporated into the NNPP planning.

The resettlement communities will be built by the Project itself, as is planned for the NT2, to the specifications agreed to with the resettlers. This will guarantee a high quality outcome, and the specifications will be in quantities rather than in currency, so that the design standards will be in effect inflation proof. This is also a feature of NT2 that builds in an automatic high quality outcome of housing and infrastructure for the resettlement sites. The housing and community facilities will be designed at a highly evident standard above what existed in the reservoir area, and the construction to this standard will be guaranteed by the Project itself.

6.4 INCOME RESTORATION

6.4.1 GENERAL

Reassembling lost production systems is a complex and difficult task that requires specialists from a diverse set of backgrounds and in order to work the full participation of the resettlers themselves not only in implementing schemes but in planning them as well.

The NNPP will provide a range of livelihood options. The option of irrigated rice paddy would appear to be one that most resettlers from the reservoir area are familiar with, given the amount, thanks to government development programs, of irrigated land that already exists in the affected communities. Forestry management appears to be a concept that is also familiar, at least to those communities in the Lower Reservoir, though more needs to be known about this.

The livelihood options aquaculture, dairy and fruit orchards, and technical skills training will represent, however, relatively new technologies and require considerable advance planning and implementation. Fruit and nut trees, such as those already introduced by IFAD – macadamia, Japanese apricots, pears, grapes, and Japanese chestnuts – through planting of tree rootstocks in Xieng Khouang Province take a long time to grow, so must be planted well in advance of resettlement. Dairy cattle farms, using draw down grass on some 45km² of reservoir is also an option that Xieng Khouang

International Farm Ltd., a private concern, has also been introduced in Xieng Khouang, where the company provides silage for cattle stock and is producing and selling milk.³ This also represents a new technology that must be prepared for well in advance.⁴

Technical skills training will be offered through community public consultation, preferably through cooperation with international NGOs, such as World Vision's participation in the Huay Ho HEP resettlement. They will be based on a long-term assessment of skills required for the development of the region. Part of the RAP, too will be an assessment of skills needed to participate in NNPP construction activities and upgrade. This will be part of setting up a mechanism for project affected persons to obtain employment with construction contractors and to participate in business opportunities created by the project and in other project-related employment sectors such as the biodiversity clearance program, where skills in removing forest cover are important as will the ability to take advantage of opportunities to make and sell charcoal.

Finally, floating net aquaculture presents a potentially very valuable livelihood option. However, it has rarely been successful when introduced only as an afterthought. The option requires close advance coordination between fisheries experts and engineers in designing the reservoir management program, and the sociocultural problems of transforming rice farmers into fishermen are daunting. However, this has been successfully done elsewhere, using participatory planning, and may be successful for the NNPP as well if enough preparation is put into it.

The first efforts will be toward a economic and technical feasibility study, assessing the new markets that should be available through upgrade of the National Roads 1 and 5 through the Taviang area. The technical aspects will address among other things the reservoir management regime, the morphometric characteristics of the reservoir itself, the sociocultural adaptability of the resettlers to this technical innovation, and provision of fish food, transport, and other tertiary services that will be required. Because of this necessary advanced planning, more time and resources may be devoted to this livelihood package than the other ones, as reflected in the table below.

Each of these Livelihood Packages will need to be treated as any multilateral or bilateral aid project would, put through a feasibility process, given an economic rate of return (IRR) and the technical and socioeconomic viability determined. Laying the groundwork for this is the task of the second phase of the NNPP. Replacing irrigated rice fields lost to inundation may be something that will be funded within the Project costs.

However, developing a full-fledged aquaculture for the reservoir, or dairy capability, or horticultural development for the region may require an international loan or grant. The purpose of this early exercise is to demonstrate that resettlement has been planned as an economic development exercise within the framework of the region's growth potentialities. If this is done convincingly, some of the more ambitious livelihood packages may attract international financing as economic development schemes in

³ BCEOM, 1999, pp. 170-171.

⁴ A grass (*Panicum repens*) planted that was planted in the draw down of Lake Kariba, in Zambia and Zimbabwe, has the remarkable ability to remain alive even when submerged for many months. At reemergence, the grass recovers and flourishes, covering wide swaths of draw down zone in rich, green carpet and helping reduce wave erosion and producing tons of manure for the grass and the lakes productive littoral zone. This in turn has helped spur a capture fishing industry based on introduction of the herbivorous fish tilapia (*tilapia rendalli*) to utilize new feeding area.

their own right.

A local development fund, within the context of watershed management will also need to be planned for. It should come from revenues from the NNPP itself. As a percentage of earnings it can be quite small and still have very significant effects for local development. While each of the above livelihood packages will be for project affected persons, resettlers primarily, the development opportunities the project will bring to the region will need to be availed the broader population within the Project Area as well

6.4.2 IRRIGATED RICE

From the sociocultural studies done for other hydropower and infrastructure projects (Ovesen, Sparkes, Chamberlain, Trankell, as well as Chazée), we know that rice cultivation is the highest priority from the standpoint of most rural Lao communities. This will be especially the case for the NNPP, where most families already had irrigated paddy fields. The experience of NT2 shows that even when other feasible livelihood options are present, upon consultation villagers are likely to prefer an irrigated rice option, at least as a backup to other packages presented.

The population in the Reservoir Area has an advantage in this regard, in that most already have experience with irrigated and/or rainfed lowland rice cultivation. Therefore that the same learning curve will not be required as for highland groups that have not made this technical transformation from upland to lowland rice already. This is largely because the Reservoir Area has been a resettlement destination as part of the GOL's policy of rural development. The Lower Reservoir has received aid from the UNDP for several decades, and the Upper Reservoir is a priority development zone.

The several potential resettlement sites so far identified will need to be ranked on their carrying capacity for development of irrigation for rice cultivation, as a high priority. They will also need to be evaluated for their potential to support the other livelihood options being developed.

Water conservancy is lifeline of agriculture and one of the necessary conditions of life. Therefore, the carrying out of a water conservancy projects for both agricultural production and domestic water supply will be a key component for resettlement. Ground water will be exploited to raise a guaranteed rate of water supply through pump wells for irrigation if feasible or through other means, such as is currently being done on the Nam Ngiep River downstream from the dam, where pumps are located on floating platforms that adjust with the river's seasonal water level. Pump-irrigation stations will be constructed for resettlers whose resettlement sites are on the reservoir shoreline.

It will be crucial that a UXO reconnaissance survey be a part of the planning for irrigated rice fields in the chosen resettlement areas, as well as for these areas in general. The Lao People's Democratic Republic suffered intense ground battles as well as extensive bombing during the Indo-China War era, especially during the period from 1964 to 1973. Such fighting left a legacy of widespread contamination by

unexploded ordnance (UXO), that still cause death and injury more than 20 years after the war ended. Much of this contamination is located in areas of possible resettlement or even conceivably the project construction. The national survey carried out by Handicap International for UXO LAO made clear recommendations that UXO reconnaissance, clearance and public education be carried out for any resettlement activity, and this will also be part of the Project mitigation strategy.⁵

6.4.3 FORESTRY

Land Use Patterns Nam Ngiep River Basin was generated as a part of the JICA study, analyzing the catchment area using 1:50,000 and 1:100,000 scale maps and dividing it into forty land systems that might show potential for commercial forestry, specialized tree production (agro-forestry), and irrigation development. This will serve as a guideline, overlaid with the potential resettlement sites that have been identified, to determine which areas might have the best potential for developing some sort of community forestry program along the lines that NT2 has developed as the main livelihood package of its rehabilitation program.

It appears from the STS socioeconomic survey that particularly in the Lower Reservoir Area there are greater forest resources and some apparent effort at a community management. A major objective of the UNDP Muang Hom Integrated Rural Development Project (1986-1989) which included the Lower Reservoir Area villages was the establishment of sawmills to provide the population with alternative cash income earning opportunities to poppy cultivation. This is evidenced by the existence of a small mobile sawmill in B.Sopyouk.⁶ This too may prove a fertile starting point for designing a forestry-based livelihood package and will be explored.

6.4.4 ORCHARDS AND NON-TIMBER FOREST PRODUCTS (NTFP)

The Project will explore the potential for orchards and other tree crops and for NTFP production on a systematic basis as a livelihood program closely allied to forestry. Some of the seeds of investment in forestry to take advantage of the Reservoir Area's strategic location between large markets in China, Vietnam and Thailand can already be seen in the NNHP's catchment area.

The Edukan Company, for instance, is developing commercial timber production in Thathom District of Xaysomboon Special Zone by developing new tree species through cross-fertilization.⁷ IFAD is introducing fruit and nut trees – Macadamia, Japanese apricots, Pears, Grapes, Japanese chestnuts, planting of tree rootstocks in Xiengkhouang Province. If the NT2 Project goes ahead with its RAP, this will prove an

⁵ Handicap International. 1997. *Province and District Report – Province of Xieng Khouang: National Survey on the Socio-Economic Impact of UXO in Lao PDR*. Report prepared for the Lao National UXO Programme (UXO Lao), Ministry of Labour and Social Welfare. Vientiane: UXO LAO. pp. 41-42, 59.

⁶ English 1998, p. 16.

⁷ Handicap International. 1997. p. 17.

important source of experience in setting a forestry program into place.

6.4.5 FLOATING NET CAGE RESERVOIR FISHERIES

With Taviang as a junction for National Roads 1 and 5, the first North South from the Chinese border to Cambodia, and the second East West from Thailand to Vietnam, the Upper Reservoir Area will be a focal zone (FARD) for development of resources to take advantage of the enormous market potential of these surrounding countries. The same can be true for the Lower Reservoir communities which will have road access for the first time southward to National Road 13.

The keynote paper on Involuntary Resettlement at the recent Workshop on Large Dams in Gland, Switzerland points out that critics of large dams have tended to underestimate the importance of reservoir fisheries for project affected people. To benefit, however, training and technical assistance are required, as is protection of the entry of project affected people during the early years of a new fishery. Otherwise, more competitive fishers from existing reservoirs and natural water bodies can be expected to dominate the new fishery. While for capture fisheries, which are the most common use of reservoir resources, a major policy deficiency has been failure to anticipate the decline in productivity that characterizes the formation of new water bodies, techniques exist to at least partially compensate for such a decline by expanding the fishery to capture a wider range of species and to use a wider range of techniques.

One technique that the paper did not explore in his paper is that of developing floating net cage aquaculture on reservoirs. The World Bank funded Saguling-Cirata Reservoir Project was the first to demonstrate the potential of a planned, "ecosystems" approach to resettlement fisheries. These environmentally oriented resettlement efforts fully utilized the new water surface for aquaculture and capture fisheries and developed supporting production, economic, and marketing infrastructure. *More new jobs were created in the support industries for reservoir fisheries than in the fisheries themselves.*⁸

The Indonesian experience with floating net cage reservoir fisheries as a resettlement livelihood package can be an important model for the NNPP to take advantage of its strategic location with respect to these markets. Annex 5 provides a case study of this experience. It will be essential to plan for this possible development of the reservoir well in advance of the actual creation of the reservoir, so that fisheries experts and reservoir management engineers may fully coordinate their efforts.

It will also be important to fully explore the development of fish net cage aquaculture as part of a multilateral regional development program to take advantage of the strategic location of the reservoir. The funding from the hydro project and from electricity generation should be, if possible, part of a larger funding supported by the World Bank, ADB or another major funding agency. The initial steps required will be to develop a feasibility study of this area development program that will meet the standards of such

agencies.

The strategic importance of Highway 4 in the Upper Reservoir meant that it is a site of extensive UXO contamination. The strong likelihood that defoliants such as Agent Orange were used in the area will require a reconnaissance survey to determine the extent, if any, of contamination by such chemical substances. This will have a bearing on the potential for fisheries in the newly created reservoir.

Besides the Indonesian experience described in Annex 5, there are a number of reservoirs in Thailand where similar aquaculture experience may be reviewed, for instance the Ubol Ratana in Northeast Thailand, Srinagarind, and Khao Laem.

The consultants Resource Management & Resource Environmental Impact Specialists (RMR) have already reviewed some of this experience for the Nam Leuk Hydropower Project's "Intensification of Fish Production Systems" planning to mitigate any possible impacts on downstream fisheries on the Nam Leuk River.⁹

Of even more relevance will be a review and assessment of recent experience in the Lao PDR itself on among others the Nam Ngum 1 Reservoir, the Ang Nam Hum, the Ang Nam Souang, the Ang Houay Xe Mouin, the Ang Houay Latkhoay, and the Ang Nam Thon Reservoir. Again, RMR have made a preliminary review of this experience, which can be built upon.¹⁰

Table 6.6 Most Important Net Cage Species in Lao PDR Reservoirs:¹¹

Scientific Name	Lao Name	Cost in Lao PDR from Private Farms	
		Per kg (Larger)	Very Small Fish
<i>Oreochromis (Tilapia) nilotica</i>	<i>Pa nin</i>	\$1.42/kg	\$0.86 per 100 fish
<i>Channa micropeltes</i>	<i>Pa do</i>	\$2.80/kg	\$1.70 per 100 fish
<i>Cyprinus carpio</i>	<i>Pa Nai</i>	\$1.42/kg	\$0.86 per 100 fish
<i>Cyprinus sp.</i>	<i>Pa kin ya</i>	\$1.29/kg	\$0.80 per 100 fish
<i>Cyprinus sp.</i>	<i>Pa Indiya</i>	\$1.42/kg	\$0.86 per 100 fish

Most cages are constructed of a supporting frame of bamboo lashed to floats (chiefly 250 liter plastic barrels). The 'cage' is composed of a cube of heavy net of 1.5cm mesh size. The average cage has a water volume of 20m³, being 4 x 3 by x 1.65m deep. Cages cost \$25-30 to make, provided the floats can be acquired for \$4 each. Fish are bought or caught to stock the cages in March to May (*Pa nin*) or September (*Pa do*), with the objective of producing fish for sale the following year at a time of high fish prices. Each cage is stocked with 2,000 kg in March/April of the following year. Net cage fish are fed on chopped leaves, cassava, rice bran, small dead fish and fish feed pellets. As with fishponds, the proportion of fish feed pellets fed to caged fish has to be carefully controlled to ensure commercial viability.¹²

⁸ Costa-Pierce, B.A. 1997. *From Farmers to Fishes: Developing Reservoir Aquaculture for People Displaced by Dams*. Washington, DC: The World Bank Technical Paper, No. 369.

⁹ Resource Management & Research Environmental Impact Specialists (RMR). 1999b. *Intensification of Fish Production Systems: Part 2, Existing Fish Intensification Methods Worldwide*. EdL, Nam Leuk Hydropower Production Systems. January.

¹⁰ Resource Management & Research Environmental Impact Specialists (RMR). 1999a. *Intensification of Fish Production Systems: Part 1, Survey of Existing Fish Intensification Methods on the Vientiane Plain*. EdL, Nam Leuk Hydropower Production Systems. January.

¹¹ RMR 1999, p. 8.

¹² RMR 1999, p. 8.

There has been a rapid expansion of floating net cages in the last five years. It is claimed that a unit of 6 cages (the desirable commercial number) can produce 4-6,000 kg of fish annually, with a net profit of \$1,200 to \$1,800.¹³

6.4.6 DAIRY AND/OR LIVESTOCK PRODUCTION

Dairy cattle farms and or livestock operations for meat production, using draw down grass on some 45 sq. kilometers of reservoir is also an option that Xieng Khouang International Farm Ltd., a private concern, has also been introduced in Xieng Khouang, where the company provides silage for cattle stock and is producing and selling milk.¹⁴ This also represents a new technology that must be prepared for well in advance.¹⁵

6.4.7 TOURISM

With new roads to the Reservoir Area and with the likelihood of an elephant reserve adjacent to the Lower Reservoir Area to the Southwest, there may be possibilities of eco-tourism that can be exploited for local benefit. This may be through a tourist lodge on the lake, berthing facilities and organized boating expeditions, perhaps focusing on birdwatching, since reservoirs are liable to attract heron and various migratory fowl. This will be explored in greater detail as one of the potential livelihood packages for households in resettlement sites well situated to take advantage of such potential.

6.4.8 TRAINING

(1) TRAINING FOR CONSTRUCTION WORK WITH THE PROJECT

It is important early on, and prior to the beginning of construction, to take an inventory of local skills in the Reservoir Area population that might find use in the construction of the project itself. The resettlement planning can take these into account and make contractors aware of them through the establishment of a Recruitment and Training Center. This may be combined with a Project Information Center (PIC) which will in any case be required as part of the public consultation process.

Once an inventory of skills has been carried out, it will be important to put together an estimation, based on the experience of other projects in Laos and then upgraded through collaboration with the contractors themselves, of the skilled and unskilled manpower needs throughout the Project's construction period. Based on this, the

¹³ RMR 1999, p. 8.

¹⁴ BCEOM. 1999. pp. 170-171.

¹⁵ A grass (*Panicum repens*) planted that was planted in the draw down of Lake Kariba, in Zambia and Zimbabwe, has the remarkable ability to remain alive even when submerged for many months. At reemergence, the grass recovers and flourishes, covering wide swaths of draw down zone in rich, green carpet and helping reduce wave erosion and producing tons of manure for the grass and the lakes productive littoral zone. This in turn has helped spur a capture fishing industry based on introduction of the herbivorous fish tilapia (*tilapia rendalli*) to utilize new feeding area.

resettlement unit will design very early on a skills training program that assist the local population (both resettlers and other local communities) to upgrade skills likely to be needed during the construction phase. It will be important for the local population to feel they are gaining direct benefit from labor internalization as an ongoing Project policy.

(2) SCHOLARSHIPS FOR RESETTLERS

It would be appropriate too, and gain much local goodwill, for the Project to establish a scholarship fund for students from the resettlement communities to gain higher and tertiary education towards certificates and degrees in electrical technician and engineering.

There are several educational routes towards this in Vientiane. Probably most appropriate would be the 2 year Certificate course at Pakpasak College. This college can also organize a 6-month local program for preparing local people to fix electrical appliance and other technician skills. For gifted students, there is also a 2-year course at the National University, Faculty of Engineering for a Bachelors degree, with a 4 year for an Electrical Engineering Diploma.

(3) TRAINING FOR AGRICULTURAL TECHNOLOGY.

Courses will be according to the trainee's requirement and will be offered by the resettlement authority itself and by the several agricultural and civil administration authorities of Provincial and District governments. The trainees will be designated by the township and town people's governments or recruited directly from resettlers and host villagers, including women, with a minimum educational level and some familiarity with agricultural technology. They will, by mastering and applying new technology and methods, become the backbone of production and popularizers of agricultural technology for their communities. A special feature of the training will be priority given to handicapped people for training in practical production technologies to diversify the resettlement area's economy.

(4) OTHER SKILLS TRAINING

Other skills training, which may be decided on in consultation with the villagers themselves, may have to do with the new availability of national highways and with the transport and communications possibilities opened up by the reservoir itself. Mechanical training, for instance, may be a popular choice among resettlers.

6.5 INFRASTRUCTURE RELOCATION

At the time of resettlement, the public infrastructure will be at a higher standard that it presently is. The Lao PDR is receiving most of its foreign assistance in upgrading

transportation facilities, to make the country a land 'linked' country rather than a land 'locked' one. The Upper Reservoir Area is at the center of two national highways planned for linking Thailand, Vietnam, China and Cambodia, and these highways will, if submerged, have to be diverted around the Upper Reservoir. There are also plans to build a North-South link road from the Lower Reservoir communities to the planned East-West National Road 5 that will pass through the Taviang Area. Parts of this will be flooded by the reservoir, unless road design changes take it into account at this early stage of planning, and the highway may have to be shifted to higher ground.

Rural electrification is slated for the Upper Reservoir communities, to be completed by the end of 2000. In the case of highways and rural electrification, a contribution that resettlement planning can make at this stage to take the initiative to liaise with the appropriate Ministries to review with them their design for these facilities, so that they can also take into account where feasible the avoidance of inundation by the planned reservoir.

6.6 REHABILITATION OF VULNERABLE GROUPS, INCLUDING INDIGENOUS PEOPLES

The Project will follow WB and ADB policies on indigenous peoples, which require in the cases of impacted vulnerable minorities preparation of an Indigenous Peoples Development Plan (IPDP).¹⁶ In the case of the Nam Theun 2, assurance that resettlement will be carried out in 'a culturally sensitive manner' was accepted as equivalent.¹⁷ The Project will accordingly carry out in the next phase sociocultural studies of the affected communities to take into account the existence of any minority populations that might be vulnerable to change without mitigative planning included in project development. If such minorities are found to be included in the Reservoir Area, a decision will be made to incorporate the IPDP into the Resettlement Action Plan itself or to prepare a separate IPDP. A brief outline of an IPDP is as follows:

The IPDP links recommendations from the Social Impact Assessment (SIA) for measures to address poverty, gender, participation, compensation and rehabilitation in the context of the minority status of the people affected. The IPDP may be in two parts:¹⁸

I. General

- Describe the key points of social organization, cultural traditions, gender relations, economic organization of the minority people. Describe their patterns of use of their environment for economic, social and cultural activities.
- Drawing upon the skills, knowledge, and social organization of minorities recommend ways in which any likely adverse impacts can be avoided or

¹⁶ Asian Development Bank. 1995 "Policy on Involuntary Resettlement," First Annual Report to the Board of Directors. Manila, Philippines. November. World Bank. 1991. OD 4.20: Indigenous Peoples. Washington, DC. September 17.

¹⁷ Nam Nheun 2 Electricity Consortium (NTEC). 1998. Nam Theun 2 Hydroelectric Project: Resettlement Action Plan. Vientiane, Lao PDR. July.

¹⁸ Adapted from a recent (1999) ADB Terms of Reference for a Hydropower Project in Vietnam, the Se San 3.

mitigated. Similarly, recommend ways to enhance project benefits for minorities. Address any gender differences, and any between minority groups. Prepare a matrix showing the likely effects and the proposed measures for mitigation, and the responsibilities for key actions.

- Prepare a Development Plan, which takes into full account the preferred options of the minority people. The recommendations may include, but not necessarily be limited to, new village roads, water supplies, waste systems, electricity, health services, education and agricultural extension. They may also include capacity building, community mobilization; training and job creation related to the reservoir construction and operation; and any new opportunities for job creation arising from the EIA.
- Specify an appropriate institutional framework. Prepare a framework for participation of minority people affected in Project construction and operation. Prepare special measures for consultation with women and any particularly vulnerable groups. Specify mechanisms for the resolution of any grievances.
- Specify a time frame and budget for key recommendations.
- Prepare a monitoring and evaluation plan, identifying the responsibilities, timeframe, some key indicators and an indicative budget. This will include ongoing monitoring by key agencies supplemented by an independent evaluation. Specify the timeframe for monitoring and reporting.
- Document all of the steps taken to consult with people affected and with wider stakeholders, including any measures taken to address the concerns raised by people affected. Identify key milestones in developing a framework for stakeholder participation.

II. Compensation And Rehabilitation Measures

- Prepare an entitlements matrix listing all likely effects, both of permanent and of temporary land acquisition, in consultation with the local or Provincial authorities, as appropriate. Suggest standards for compensation and restoration of the social and economic base of the people affected to replace all types of loss. Provide for any vulnerable groups, such as tenants or households headed by women, to restore their economic and social base.
- Prepare a framework for participation of people affected in setting entitlements and in implementation compensation and rehabilitation. Prepare special measures for consultation with any vulnerable groups. Specify procedures for grievance resolution in compensation arrangements.
- Prepare an institutional framework setting out responsibilities to manage and monitor compensation and rehabilitation. Prepare a monitoring and evaluation plan, identifying the responsibilities, time frame and some key indicators. This will include ongoing monitoring by key agencies supplemented by an independent evaluation. These measures will be linked with the overall IPDP management and monitoring system.
- Prepare a time frame and implementation schedule which provides for compensation and other measures before flooding to people affected and show

links with the IPDP time frame.

- Prepare a budget, identify land acquisition, compensation and rehabilitation costs. Prepare budgetary allocation and timing. Specify sources of funding and the budget approval process, insofar as these may differ from the overall IPDP budget.

During the Reservoir Area census carried out as part of the RAP exercise, identification of other vulnerable groups will be made and plans put together accordingly to assist them in making a successful transition to the new resettlement sites. These will include female headed households, handicapped persons, the elderly, women requiring pre-natal care, very poor households, and other groups identified during the census preparation phase as requiring special assistance.

6.7 SOCIAL ADJUSTMENT

Since those displaced or losing land because of the NNHP construction and inundation will be doing so involuntarily, it is to be expected that both the resettlers and the host villagers will experience new psychological, physiological, and sociocultural pressures and challenges during the relocation period.

Experience proves that many kinds of pressure that the resettlers feel can be avoided or eased provided appropriate policies and positive measures are adopted in the resettlement planning phases of relocation and production recovery. During the early design period, planning the resettlement for the NNHP will put much emphasis on supporting the project affected people through their social adjustment.

The resettlement planning and design personnel will have worked among the affected communities a relatively long time and will have had much contact during the detailed site investigation with the villagers of both the reservoir and resettlement areas. Through talking with the villagers, the resettlement plan designers will come to understand the people's thoughts and requirements first hand, especially those expressing their worries regarding the circumstances they will be facing.

With their first hand understanding of the resettlers and their socioeconomic conditions, the resettlement plan designers will keep issues of social adjustment a high priority. Throughout the resettlement planning and implementation, the following measures for social adjustment, *inter alia*, will be adopted:

Land Based Resettlement. The detailed site investigation has already determined that almost all of resettlers are agriculturalists, so resettlement will be land-based to maintain a way of life familiar to the affected villagers. Each relocated peasant will receive 1 ha of farmland, including irrigated fields at a standard higher than they currently possess.

Moving Close by if Possible and as a Social Unit. Through its review of international experience the Project will maintain a resettlement policy of resettling farmers close by their original homes if possible. The resettlement planning will make a determination of

the environmental carrying capacity of the area surrounding the reservoir and will absorb as many resettlers as possible into their original communities or close by.

The rest will be resettled according to their wishes as determined through community consultation, joining relatives and former neighbors if this is their wish and it is determined to be feasible. With 16 potential resettlement sites already identified, many of them in areas where the Reservoir Area population migrated from, this is a real possibility. The resettlers will, as they wish, be moved within their original social units, in order to maintain to the extent possible their original social networks and production systems. In the case of Lao Soung, this may require attention to kinship networks and with Lao Loum and Lao Theung it may be more community based. These issues will be examined through a sociocultural survey to be conducted during the next study phase.

As Little Land as Possible will be requisitioned from any Given Host Village and Their Public Infrastructure will be strengthened. Farmland for each resettlement village will be requisitioned from as many host villages as possible to reduce the effect on the villages contributing land. The host villagers will be paid compensation for the requisitioned land, based on its quality. In addition, the floor space of host village public infrastructure will be expanded for primary schools, for clinics, and for community centers. They will also receive additional inter-village roads through the resettlement site planning.

Strengthening Resettlement Administrative Agencies and Training Staff. The quality of staff at all levels will play a critical role in the success of resettlement. Therefore, the staff of all resettlement officials will receive training, with a special effort to recruit and train women. The training for social adjustment will include an introduction to the Project's guiding resettlement principles relating to social adjustment; the significance of social adjustment services; difficulties and problems that might arise during resettlement related to social adjustment; interactive skills for consultation and local participation; and conflict resolution.

Incorporating Gender Issues into Resettlement Planning. Rural women in Laos not only participate in farming but also take the major responsibility for housework. Particular attention will be paid to the women's demands and interests in resettlement planning. Their comments and requirements will be extensively collected and listened to carefully. Maternal and child health care will be a special component of the actual relocation. Women will be consulted during the planning of public infrastructure. They will also be included in the resettlement scientific and technology training programs, which will be carried out through nonformal education to take into account the lower levels of education of many women. Such training will be in the areas of agricultural production and secondary occupational technologies and will help women increase their household income.

Assuring Due Process through Signing Agreements. Resettlement procedures include the signing of a number of documents that lay out responsibilities, rights, obligations, and the means for handling disputes. One agreement is just before relocation, when households will ratify statements of their compensated assets. These will lay out in detail the rights, benefits, and obligations of the household and Project, including special concerns to be shown to old people and children during the relocation itself.

Another agreement will be between resettlers and host villagers so the two parties will have a clear understanding of their mutual responsibilities, rights and obligations, and the means by which disputes between them will be handled.

Carrying Out a Public Information Campaign. The Project will carry out well in advance of relocation a public information campaign about the due process afforded resettlers and the benefits of the resettlement program. An important part of the public information campaign will be highlighting the positive aspects of Development Resettlement, which will improve the material condition of the resettlers while keeping their social integration intact.

Implementing Area Development Fund Supportive of Resettlers. The Project will commit to a Fund for Reservoir Area Development will be deducted from the power generation benefits to support resettlers for a period of five to ten years, depending on degree they recover their agricultural production and achieve a measure of economic development.

6.8 LAND ACQUISITION AND RELOCATION PROCEDURE

Resettlement procedures include the signing of a number of documents that lay out responsibilities, rights, obligations, and the means for handling disputes. One agreement is just before relocation, when households will ratify statements of their compensated assets. These will lay out in detail the rights, benefits, and obligations of the household and Project, including special concerns to be shown to old people and children during the relocation itself. Another agreement will be between resettlers and host villagers so the two parties will have a clear understanding of their mutual responsibilities, rights and obligations, and the means by which disputes between them will be handled.

6.9 RESETTLEMENT FUND FOR LONG TERM ECONOMIC RECOVERY

The Project will commit to a Fund for Reservoir Area Development will be deducted from the power generation benefits to support resettlers for a period of five to ten years, depending on degree they recover their agricultural production and achieve a measure of economic development.

6.10 RESETTLEMENT IMPLEMENTATION SCHEDULE

The RAP implementation schedule will be coordinated closely with the Project construction schedule. Table 6.7 below indicates actual relocation being completed in year 9 of the planning process, and resettlement activities continuing through year 12,

another 3 years. In point of fact, from the time of actual resettlement occurring until complete recovery by the affected community will require a longer period of support, possibly from experience elsewhere in the world, of up to 10 years through a Local Development Fund derived from electricity generation sales. This is standard policy, legislated into law, in China, for instance, where the percentage of sales is infinitesimal but adds up to a sizable sum for local development.¹⁹

At this stage, the PRP, RAP implementation will not be dealt with in a more detailed way. The final RAP to be approved before the Project financing is finalized will provide a detailed implementation schedule.

¹⁹ In 1981, the MEP defined a policy that 0.001 RMB yuan, included in the cost of power generation, be deducted from each kWh produced by hydropower stations under the Ministry for use as a *Fund For Reservoir Area Maintenance (FRAW)* in order to help resettlers solve difficulties of resuming agricultural production and to raise their living standard. The fund is for ten years or until livelihood has been judged to be on a sound and improved footing.

Table 6.7 Preliminary Construction and Resettlement Task Schedule

TASKS	Feasibility & Final EIA/SIA		Detailed Design + Funding (2-3 Years)			Construction (5 Years)					Filling	
	1	2	3	4	5	6	7	8	9	10		
Wet Season												
Beginning of Phase Two Feasibility Study												
Environmental Impact Assessment (EIA)												
Social Impact Assessment (SIA)												
Preparation of Draft RAP												
Preparation of Public Consultation Program												
Preparation TORs for Livelihood Programs												
1 st Capacity Assessment Resettlement Sites												
Backwater & Sedimentation Modeling												
Archaeological Review & Field Survey												
End Phase Two Feasibility Study												
Beginning of Project Preparation												
Setting Up Financing Arrangements												
Detailed Technical Design												
Preparation of Final RAP												
Community Consultation Program												
Agricultural Development Program Design Phase												
Aquaculture Development Program Design Phase												
Forest Management Program Design Phase												
Livestock Improvement Program Design Phase												
Dairy Development Program Design Phase												
Horticulture Development Program Design Phase												
Community Development Program Design Phase												
Technical Training Program Design Phase												
Detailed Census of Inundation Losses												
Formal Acceptance of Final RAP												
Formal Agreement to Build Dam												
Construction Start												
Coffier Dam Completion												
Filling to Lower Elevation												
Dam Completion												
Filling to Higher Elevation												
Commercial Operation Date (COD)												
New Village Location and Layout Planning												
Design/Cost New Village Infrastructure												
Commence New Village Construction												
Pre-Relocation Village Activities												
Pilot Village Establishment												
M&C Care, Vulnerable & Elderly Health Program												
Livestock Health & Relocation Program												
Relocation of Villages - Lower Elevation												
Relocation of Villages - Higher Elevation												
Land Clearing and Fencing												
Village Road Construction												
Village Site Preparation												
Farm/Home Plot Development												
House Construction												
Village Water Supply System												
Rice Land Development												
Irrigation System												
Village Electricity System												
Community Buildings												
Health Program Implementation												
Forest Management Implementation												
Community Development Implementation												
Technical Training Program Implementation												
Livestock Improvement Program Implementation												
Dairy Development Program Implementation												
Horticulture Development Implementation												
Aquaculture Development Implementation												
Post-Relocation Village Activities												
Resettlement Monitoring Program												
Resettlement Management Unit												
Monitoring and Evaluation												

II. After Dam Completion

YEAR TASKS	Filling		Operation		
	10	Years 1-5	Years 6-10	Years 11-15	Years 16-20
Wet Season					
Dam Completion					
Filling to Higher Elevation					
Commercial Operation Date (COD)					
New Village Location and Layout Planning					
Design/Cost New Village Infrastructure					
Commence New Village Construction					
Pre-Relocation Village Activities					
Pilot Village Establishment					
Relocation of Villages - Lower Elevation					
Relocation of Villages - Higher Elevation					
Land Clearing and Fencing					
Village Road Construction					
Village Site Preparation					
Farm/Home Plot Development					
House Construction					
Village Water Supply System					
Rice Land Development					
Irrigation System					
Village Electricity System					
Community Buildings					
Forest Management Program Implementation					
Livestock Improvement Program Implementation					
Community Development Program Implementation					
Fisheries Development Program Implementation					
Agricultural Development Program Implementation					
Dairy Development Program Implementation					
Horticulture Development Program Implementation					
Post-Relocation Village Activities					
Resettlement Monitoring Program					
Health Program Implementation					
Aquaculture Development Implementation					
Agricultural Development Implementation					
Resettlement Management Unit					
Monitoring and Evaluation					

CHAPTER - 7

COMPENSATION COST ESTIMATE

7. COMPENSATION COST ESTIMATE

7.1. COMPENSATION PRINCIPLES

The principles for compensation will follow those established in the NT2 Project resettlement policy and incorporated in the draft national resettlement policy drafted by that project. They will include the following:

- All affected persons, housing, land, and other assets registered at the time of the population survey and asset inventory, and all who can demonstrate a loss, have the right to adequate compensation for loss and to income restoration in conformity with these principles.
- Compensation for affected houses, other structures, and for land loss must be at replacement cost.
- The replacement of housing plots, housing and agricultural land must be of acceptable standard, use and value to the satisfaction of the affected owner.
- Where relocation is required, the transition period should be as short as possible. The affected person must receive land as compensation prior to relocation, although under special circumstances cash may substitute for land.
- Prior to the approval of the resettlement program, public consultation must be carried out with the affected persons to ascertain their opinions.
- Prior to settling into new resettlement areas, infrastructure and services must be replaced to a level of service higher than before.
- Material and tools to be used at the new site or for the new occupation, or for rehabilitation, must be supplied in a timely manner.
- If compensation alone is not adequate to improve the livelihood of affected persons, additional rehabilitation measures must be developed for this purpose.

7.2. COMPENSATION RATES

There is no land acquisition law as found in many countries and the Project will necessarily rely on the experience and precedents set by other projects, such as the ADB-funded Nam Leuk Hydroelectric Project. In the Nam Leuk, land compensation for borrowed land was made in the form of rice equivalent to harvests lost and in material improvements to the land's productivity, such as upgrading of irrigation systems, provision of small tractors and irrigation pumps and so forth.

For permanent acquisition, the Nam Leuk Hydro Project monitored harvests over a period of 3-4 years and cash compensation was made on the basis of 6-7 years' harvest. This was determined as a proxy for full market value, given the lack of a fully realized real estate market in rural Laos. Detailed land acquisition procedures will be worked out during the RAP preparation studies, and the experience of other projects, such as the NT2, will be taken into account.

Where cash compensation is required, payment will be made in terms of US dollars or a similar hard currency. However, most resettlement expenses will be determined in quantities. The resettlement standards for housing, infrastructure, land and livelihood packages will be substantially above those of the pre-resettlement communities. Most families will receive relocation allowances and subsidies during the initial years, but full compensation for lost assets will be made up in kind. For families that opt out of the full resettlement program, having established to the Project's satisfaction, that they have made adequate alternative arrangements for reestablishing their livelihoods outside the formal resettlement framework, cash compensation may be made available at the rates determined by the Project. These will be based on full replacement at current market value.

7.3. COMPENSATION COST ESTIMATE AND BUDGET

The resettlement program will provide financial resources to buy land, to compensate loss, and to provide support during rehabilitation of the affected persons. A detailed budget estimate will be prepared showing itemized categories of compensation, relocation and rehabilitation costs. The settlement program, including contingencies, will be determined prior to formal project approval; the sources of funds for the program will also be identified and secured prior to final sign off on the construction program. The owner of the project will be responsible for bearing all resettlement cost unless other arrangements are agreed to.

At this PRP stage, the design for the NNHP has not been decided upon as yet, and therefore the number of affected households is not determined. Also, considerations such as backwater effect must be calculated to obtain an accurate effect of the inundation on Upper Reservoir communities, even at the lower dam height. Nevertheless, it is possible to calculate some rough costs for the proposed resettlement program based on NT2 calculations as well as unit figures obtained from an assessment of other hydro projects being planned for the Lao PDR.

Actual costs will be determined in the RAP preparation phase, based on a more comprehensive inventory of inundated assets. Based on current calculations, FSL 318-320m dam RAP might cost nearly US\$6 million and the 360m dam RAP might cost in the vicinity of US\$15 million. This compares with an estimated US\$7 million in estimated inundation loss through loss of agricultural productive assets, natural resources, and infrastructure as shown in Table 7.1.

Table 7.1 Preliminary Summary of Resettlement Costs

No.	Items	Unit	Unit Costs	FSL 360m		FSL 320m		Source
				Q/ty	Amount	Q/ty	Amount	
A	RESETTLEMENT							
1.	Houses	House	\$2,120	853	\$1,808,360	260	\$551,200	HDP
2.	Infrastructure	HH	\$1,300	853	\$1,108,900	260	\$338,000	PSPS
3.	Resettlement Costs (moving)	HH	\$200	853	\$170,600	260	\$52,000	NT2 ALT
4.	Miscellaneous	HH	\$130	853	\$110,890	260	\$33,800	-
	Sub-Total				\$3,198,750		\$975,000	
B	LIVELIHOOD COMPONENT							
1.	Lowland Paddy Irrigation Development (1.0ha/HH)	ha	\$5,000	853	\$4,265,000	260	\$1,300,000	Pan Piao
2.	Upland Rice Field (0.5ha/HH)	ha	\$1,000	427	\$427,000	130	\$130,000	-
3.	Garden (0.15ha/HH)	ha	\$1,000	128	\$128,000	40	\$40,000	-
4.	Forestry Management Program	HH	\$625	853	\$533,125	260	\$162,500	NT2 RAP
5.	Livestock Improvement Program	HH	\$625	853	\$533,125	260	\$16,250	NT2 RAP
6.	Reservoir Develop.(Transport/Fishing)	HH	\$625	853	\$533,125	260	\$162,500	NT2 RAP
7.	Agro Industry and Handicrafts Center	HH	\$625	853	\$533,125	260	\$162,500	NT2 RAP
8.	Miscellaneous	HH	\$150	853	\$127,950	260	\$39,000	-
	Sub-Total				\$7,080,450		\$2,159,000	
C	COMMUNITY DEVELOP.& MANAGE.							
1.	Skills Training	HH	\$200	853	\$170,600	260	\$52,000	NT2 RAP
2.	Technical Support	HH	\$200	853	\$170,600	260	\$52,000	NT2 RAP
3.	Community Development	HH	\$225	853	\$191,925	260	\$58,500	NT2 RAP
4.	Income Support Program	HH	\$720	853	\$614,160	260	\$187,200	NT2 RAP
5.	Resettlement Manage. Unit for 8 Years	HH	\$4,065	853	\$3,467,445	260	\$1,056,900	NT2 RAP
6.	Health Program	HH	\$477	853	\$406,881	260	\$124,020	NT2 RAP
7.	Miscellaneous	HH	\$360	853	\$307,080	260	\$93,600	-
	Sub-Total				\$5,328,691		\$1,624,220	
I	Total (A+B+C)				\$15,607,891		\$4,758,220	
II	Contingencies (15% of I)				\$2,341,184		\$713,733	
III	TOTAL (I+II)				\$17,949,075		\$5,471,953	
IV	Possible Population Growth (30% of III)				\$5,384,722		\$1,641,586	
V	TOTAL (III+IV)				\$23,333,797		\$7,113,539	

All budget figures relating to the RAP and to the Social Action Plan (SAP) will be phased according preparation, construction and operation phases during the next stage of the feasibility study.

7.4. COMPENSATION FUNDS MANAGEMENT

The Project will be responsible for the correct and efficient management of the budget. The details of this management will be spelled out in the draft RAP.

CHAPTER - 8

INSTITUTIONAL ORGANIZATION

8. INSTITUTIONAL ORGANIZATION

8.1 INSTITUTIONS RESPONSIBLE FOR RESETTLEMENT PLANNING AND MANAGEMENT

The Nam Theun 2 Hydroelectric Project (NT2) has already set a precedent in the Lao PDR for the institutional framework for resettlement, and this will be adhered to for the NNPP. Until recently with the NT2 HEP, no formal administrative structure existed in the Lao PDR to deal with involuntary resettlement caused by large infrastructure projects. For a small number of development projects that involved involuntary resettlement, ad hoc institutional arrangements were made at the project level for resettlement implementation. The draft national resettlement policy prepared by the NT2 on behalf of the GOL suggests that resettlement management of different projects will be the responsibility of the GOL ministries, and in particular the Ministry of Industries and Handicrafts (MIH) for hydroelectric projects such as the NNHP. The MIH has the responsibility to determine appropriate procedures, principles, and policies for the resettlement management of projects under its purview.¹

In response to the NT2, the largest and most complex development project involving significant resettlement with which GOL has had to deal, GOL has established a comprehensive resettlement organizational structure that may be expected to function as well for the NNHP. This comprises a Resettlement Committee, a Resettlement Management Unit, District Resettlement Working Groups, and Village Resettlement Committees. Collectively, these organizations have been given the responsibility for implementing the NT2's RAP.

8.2 RESETTLEMENT COMMITTEE (RC)

To effectively organize and coordinate resettlement activities for the NT2, GOL through its Committee for Planning and Cooperation (CPC) established a Resettlement Committee (RC) by Decree 12/CPC, signed on January 25, 1995. The RC consists of 6 people representing relevant GOL agencies and the affected provinces. The RC has been led by a high ranking GOL official, the former Director of the Rural Development Committee at the State Planning Committee. The RC is responsible to the Vice Prime Minister, and its main responsibilities have been to:

- Develop the Project resettlement policy;

¹ Nam Nheun 2 Electricity Consortium (NTEC). 1998. *Nam Theun 2 Hydroelectric Project: Resettlement Action Plan*. Vientiane, Lao PDR. July.. pp. 6-1 thru 6-10.

- Prepare the RAP;
- Establish the Resettlement Management Unit (RMU);
- Organize and carry out the RAP implementation;
- Coordinate and resolve issues among various central government agencies, provincial governments and the Project authorities throughout the resettlement planning and implementation period;
- Monitor the resettlement implementation carried out by the RMU and other agencies and organizations.

The RC was also involved extensively in the various resettlement consultation activities at both national and regional levels, for instance organizing a resettlement policy workshop where drafts of the Project and draft National Resettlement policies were discussed. The RC will be responsible for ensuring that those aspects of the RAP that are GOL's responsibility are carried out on time and on budget. In addition, the RC will have overall responsibility for all resettlement and compensation activities, even though others including the Project's Ownership Company (OC) may carry them out.

8.3 RESETTLEMENT MANAGEMENT UNIT (RMU)

In order to strengthen institutional capacity, a Resettlement Management Unit (RMU) was set up for the NT2, responsible for organizing the affected districts and villages to carry out designated activities for the RAP. The RMU is directly under the leadership of the RC, representing GOL and relevant provincial governments. The RMU's staff comes from relevant central, provincial and district government agencies.

The RMU is responsible for facilitating resettlement planning and participation and for implementing the RAP approved by GOL and, in the case of the NNPP, the Project Ownership Company and possible funding agencies.

Under the leadership of the RMU, a Resettlement Working Group was set up for the NT2 in each affected district, each group responsible for carrying out consultation and implementation in the affected villages.

The specific responsibilities of the RMU are to:

Organize and coordinate relevant government agencies and district governments to facilitate the Project in developing an RAP, by carrying out a social economic survey of the affected people, consultation with affected villages, investigating potential resources and developing livelihood schemes.

- Organize and coordinate government agencies and district governments as well as the Project to prepare and implement the RAP, which includes constructing resettlement villages, developing new agro-forestry, reservoir fisheries, horticultural, dairy and other production systems, and carrying out a community development program.

- Obtain and allocate resettlement budgets to District Resettlement Working Groups and through them to affected villages and households, or to other agencies (public and private) directly involved in resettlement implementation.
- Provide guidance and training for district working group staff and organize community participation and new skills training for the affected villages and individuals.
- Monitor the physical progress of all resettlement components in each district; and ensure the program is completed within the agreed time schedule.

Based on these responsibilities, the NT2 RMU was organized into two groups, a Technical Group and an Administration and Finance Group.

The Technical Group includes three functions:

- Livelihood Development
- Social and Community Development and
- Training and Skills Development

The Administration and Finance Group also has three functions:

- Administration
- Finance
- Monitoring

8.4 DISTRICT RESETTLEMENT WORKING GROUPS (DRWG)

District Resettlement Working Groups will be set up for Kham, Khoun, Thathom, Xaysomboon, Hom, Borikhanh and Pakxan Districts (according to resettlement site selection). In Bolikhamsay Province a Provincial Level Working Group will be set up to deal with resettlement impacts from the transmission component of the NNPP.

The DRWG will have close contacts with the relocated and host villages and will be responsible for implementing the relocation and rehabilitation work in their district including:

- Carrying out consultation among the affected villages and individuals regarding the resettlement entitlements;
- Organizing and facilitating the process of identifying resettlement sites, designing village layout, including plot allocation and distribution;
- Organizing the implementation of the livelihood programs for the villages and coordinating related training activities;
- Providing relocation and transitional assistance; and
- Reporting on progress to RMU and the District Governments.

The DRWG will have from 2-15 staff depending on their size and their sale of resettlement tasks, including District Chief and representatives from the District's Lao Women's Union and other District departments. An office will be set up for the DRWGs in District headquarters. During the peak period of relocation, additional staff from the District or villages may be allocated to assist the affected villages and households.

8.5 VILLAGE RESETTLEMENT COMMITTEES (VRC)

Each village will appoint its own Village Resettlement Committee (VRC). The most appropriate men and women will be selected on a consensus basis to represent the interests of the village. The VRCs will receive special training as to their function and how to best carry it out. The VRCs will be the responsibility of the DRWGs. One of the first tasks of the VRC will be to assist in the final selection of the new resettlement village site(s).

8.6 RESETTLEMENT OFFICE OF OWNERSHIP COMPANY (RO)

In addition to the RMU, the Resettlement Office (RO) will have a major role to play in resettlement, particularly in the delivery of village infrastructure. Construction of roads, water and electricity distribution systems, housing and schools must take place on a critical path schedule so that the new villages are ready on time, allowing for the move and the subsequent filling of the reservoir according to the Project's construction and commissioning schedule. The RO and EO (Environment Office) will be under the Director of Resettlement and Environment (DRE) of the OC. Close liaison between the RO and the RMU will need to be maintained at the working level, while any policy issues will be dealt with at the RC level, from which both the RMU and RO will receive direction.

8.7 OTHER IMPLEMENTING ORGANIZATIONS

8.7.1 PROVINCIAL AUTHORITIES

The affected provinces of Xieng Khouan, Xaysomboon, and Bolikhamsay will be represented on the RC and RMU. Many aspects of the resettlement implementation will require the approval and support of the Provincial Governments. For example, land allocation activities, including those for resettlement purposes, will require approval of Provincial governments.²

² NTEC 1998, Chapter 6.

Investment projects beyond a certain scale such as those in the resettlement program, and all changes in government service facilities, such as setting up new clinics and schools in the resettlement and host villages will require approval by different departments of the Provincial governments. Allocating rights to existing forests to villages will require permission from Provincial governments.

These approvals will need to be either granted prior to construction commencing, as a fast track approval system, or as authority delegated to the RMU, so that delays do not hamper Project implementation. It is important, therefore, that during the resettlement planning and implementation, the RMU work closely with concerned Provincial governments and departments to keep them fully informed on progress so that they do not feel by-passed. Village plans will need to be submitted to allow for timely review by Provincial officials.

8.7.2 LAO WOMEN'S UNION (LWU)

The LWU will play an important role in resettlement implementation for the Project. They will help organize designated activities, particularly those involving the community and coordinate training on different subjects, such as public health, family planning, education and skills for women.

Representatives of provincial and district level LWU will be hired as staff in both the RMU and the DRWGs, and they will be part of the management teams in carrying out designated resettlement activities for the Project. LWU responsibilities will include addressing women in development issues in the resettlement villages and initiating income generating activities targeted for women.

8.7.3 VILLAGE ORGANIZATIONS

In addition to the VRC, there are other village organizations – formal and informal – that can assist in resettlement. Each village has a Council of Village Elders, Youth Organization, Culture and Information Unit, and National Reconstruction Front. They and the Village Chief play roles in the village decision-making process. While the effectiveness of these organizations to organize and maintain village welfare depends on the social structure and level of economic development, they are, nevertheless, potential resources for community development and as such can play a role in resettlement.

8.7.4 OWNERSHIP COMPANY

As the owner of the Project, the OC (to be decided) will play a key role in the resettlement planning and implementation of the Project. The OC will be responsible to provide funding according to the approved RAP. The OC will also be responsible for some civil engineering components, such as: construction of new roads to relocated

villages and preparing resettlement sites; providing infrastructure and facilities, including water and electricity to relocated households; provision of fields and water conservancy components of the irrigated rice paddy systems; and much of the technical content of the other livelihood packages such as the reservoir fisheries.

8.7.5 CONSULTANTS, CONTRACTORS AND NGOS

Private contractors and NGOs can carry out many of the technical activities concerning relocation, infrastructure and livelihood under specific contracts to the OC or the RMU. Some of these organizations have technical capacity, extensive knowledge of local socioeconomic conditions and experienced local staff, which allows them to quite effectively carry out some designated components of the resettlement program.

Such tasks may include preparing resettlement sites, developing and implementing agricultural field testing, organizing community-based development activities, including health, education, and income generation. These activities will not only help develop village-based organizations and capacities but also provide excellent training opportunities for many staff from Provincial and District agencies.

8.8 STAFFING

The NT2 designated staff for resettlement organizations in 1998 totaled 49 persons, including 6 from the RC, 8 from the RMU, and 35 from its five DRWGs. As the workload of the RMU was expected to increase, the number of staff would accordingly increase. Contracting out of specific tasks will also feature in the operation of the RMU; use of consultants and NGOs would further strengthen overall the ability to plan for and deliver infrastructure and services.³

The RMU will be expected to have up to 20 full time staff with various skills and professional background, including planning, social development, financial training, monitoring, etc. By having representative staff from each affected Province (Xiang Khouan, Xaysomboon, and Bolikhamsay) the RMU will establish effective working relationships with the concerned districts. The RMU's office will possibly be established in Pakxan in close proximity to the Project and affected areas, with sub-offices in the Upper and Lower Reservoir Areas.

The RMU (and also RO) staff and contracted parties will require a broad array of technical skills to implement a social and economic development program to integrate the communities inundated by the reservoir into host areas where they will be resettled. These should include, among others, advisory and local staff in project management; irrigation and civil engineering, agronomy, horticulture, dairy and fisheries development; community and agro-forestry; public consultation, gender issues, and training.

³ NTEC 1998, Chapter 6.

The DRWG will have from 2-15 staff depending on their size and their sale of resettlement tasks, including District Chief and representatives from the District's Lao Women's Union and other District departments. An office will be set up for the DRWGs in District headquarters. During the peak period of relocation, additional staff from the District or villages may be allocated to assist the affected villages and households.

8.9 ORGANIZATION CHARTS

The draft RAP will contain organization charts based on the institutional arrangements decided upon during the resettlement planning. Three (3) organizational charts adapted from the NT2 RAP will be useful for departure in planning the NNHP RAP institutional framework as shown in Figures 8.1 to 8.3. The charts presented here are from the NT2 RAP and will be adapted accordingly. Figure 8.3 in particular will show the District and Provincial Resettlement Working Groups for the NNHP, instead of as here for the NT2:

Organizational Elements for RAP

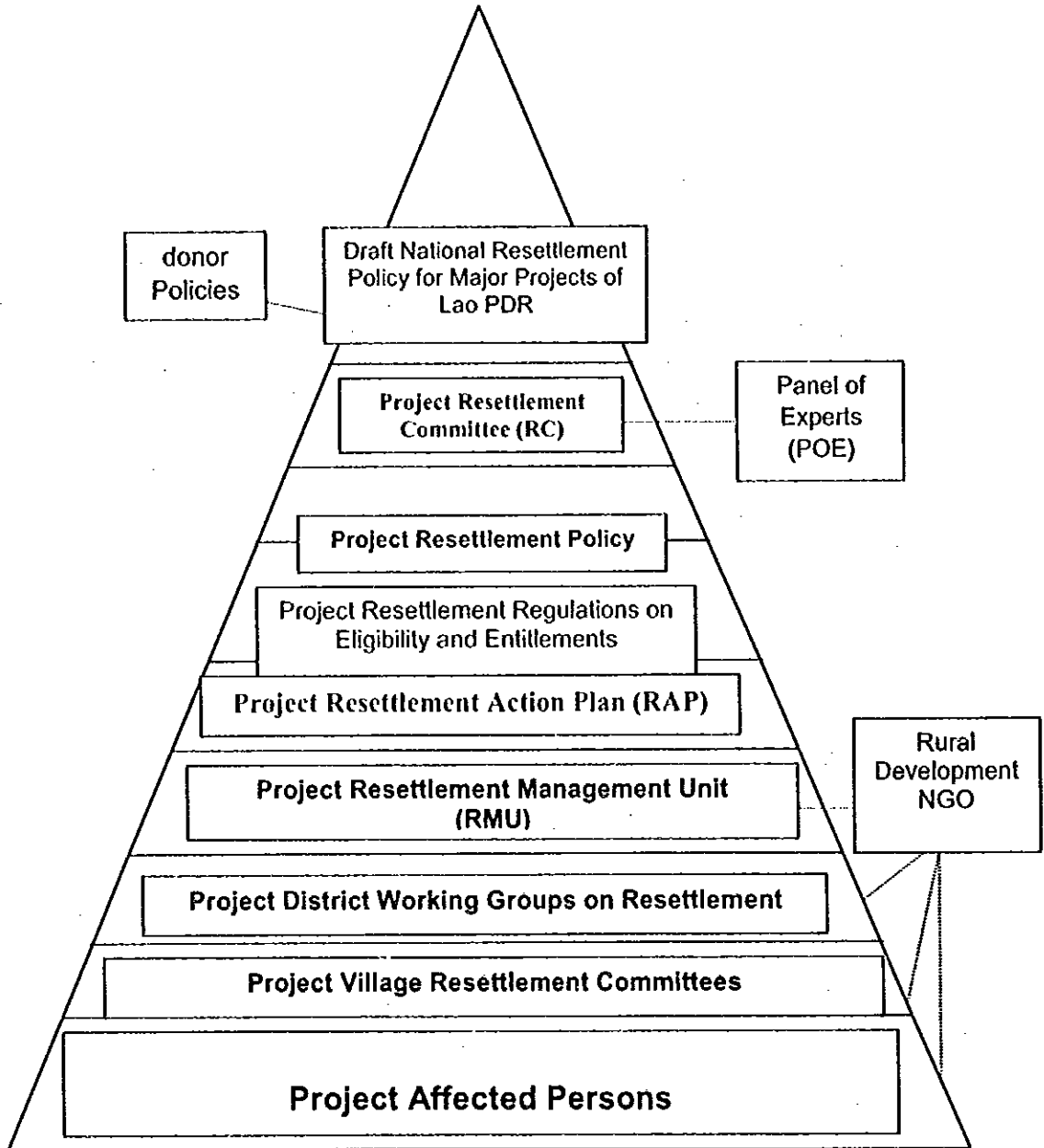


Figure 8.1 NNHP Organizational Elements for the RAP

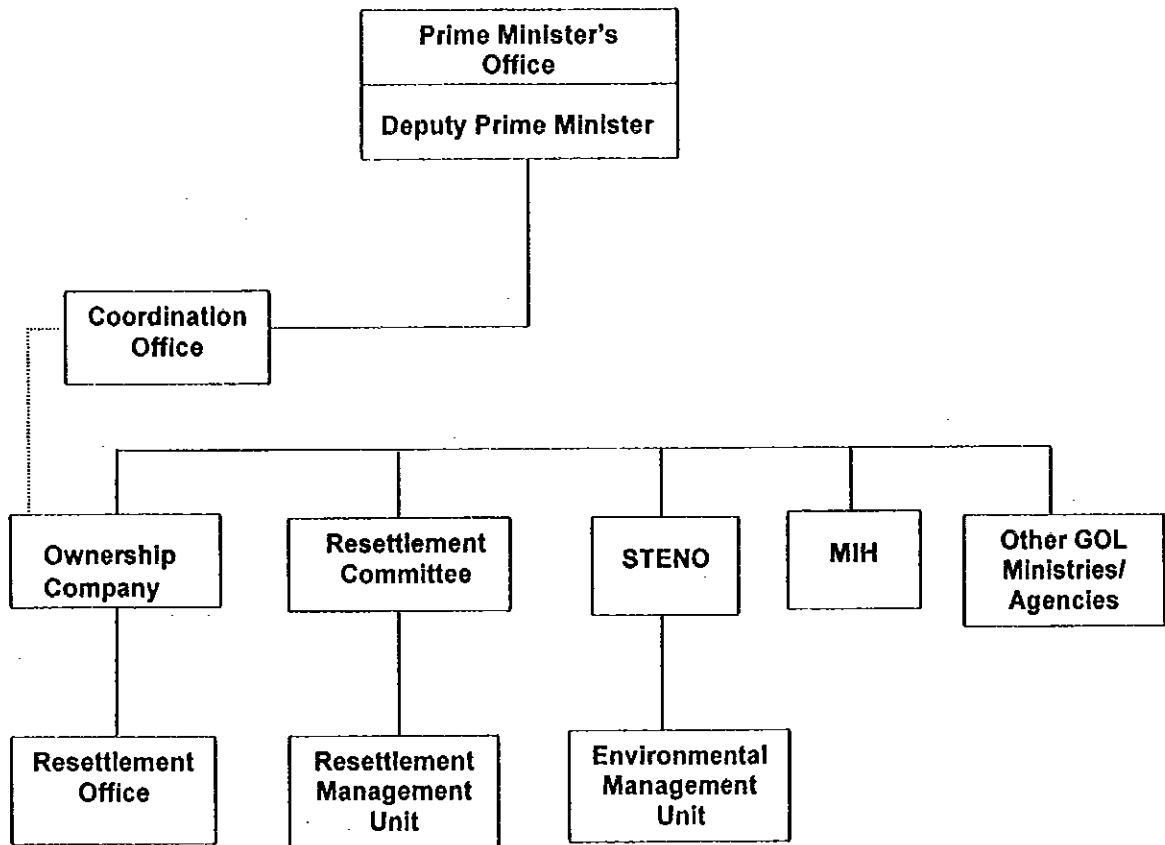


Figure 8.2 GOL Organization for NNHP RAP

NHP RESETTLEMENT ORGANIZATION

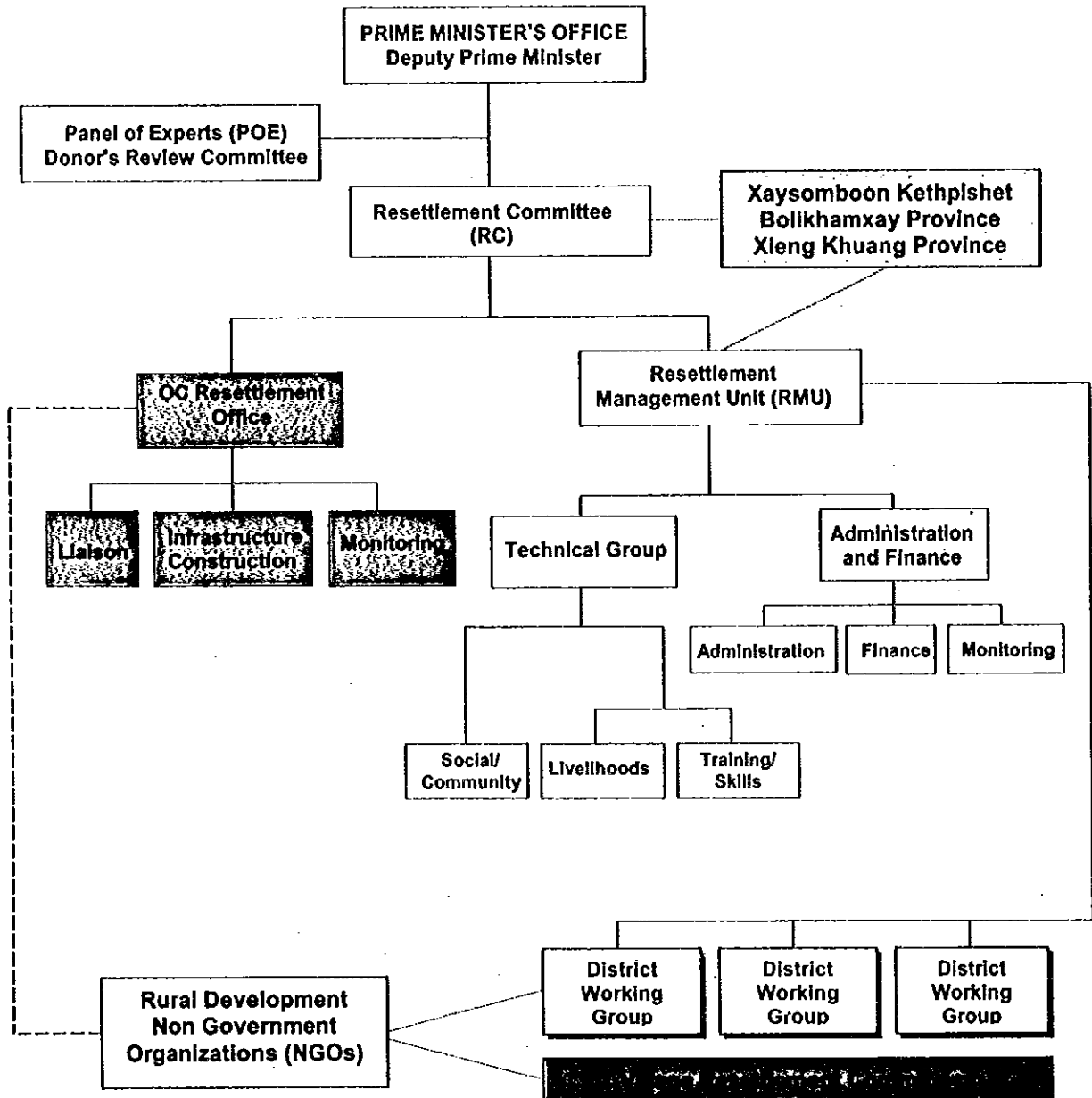


Figure 8.3 NNHP Resettlement Organization

NHPP RESETTLEMENT ORGANIZATION

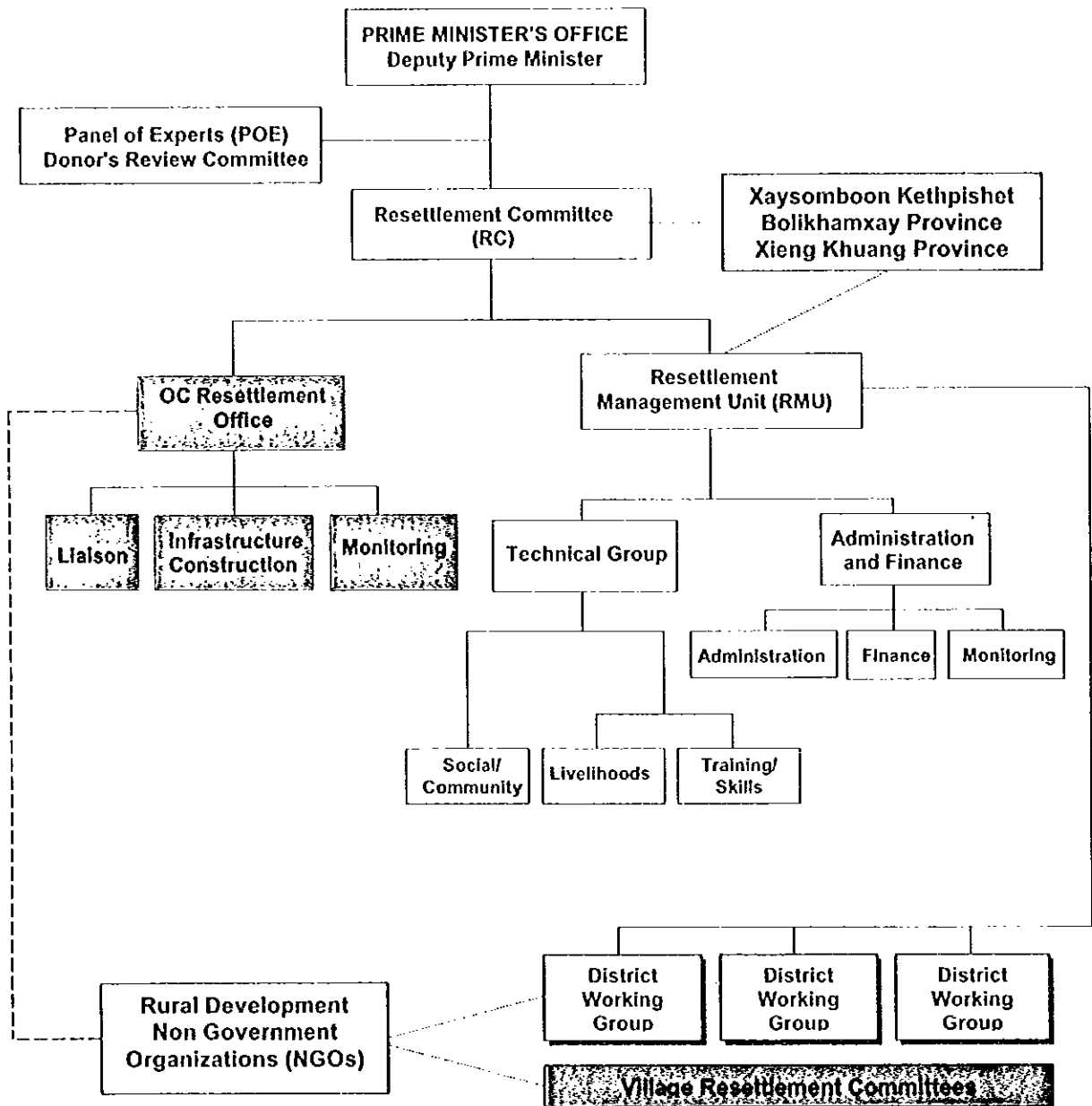


Figure 8.3 NNHP Resettlement Organization

8.10 MEASURES FOR STRENGTHENING INSTITUTIONAL CAPACITY

During the resettlement implementation, the RMU and district working groups will play important roles. In order to strengthen the institutional capacity, a training program will be needed for resettlement staff. For the RMU, staff training will be required to have:

- A clear understanding of the Project's resettlement policies and entitlements of the affected people;
- Knowledge of steps and skills required in developing and implementing the RAP;
- The basic capacity of organizing district working groups and village resettlement committees to carry out the resettlement implementation activities;
- The management skills for allocating resettlement tasks and funds and carrying out effective supervision and monitoring.

In general, the institutional capacity at the District level in the Lao PDR is presently limited. However, as the main implementations for resettlement, they will be directly responsible to carry out most of the detailed implementation activities in the affected villages. In order to strengthen the capacity of district working groups, training will be needed.

A series of workshops will be developed along the lines proposed for the NT2 RAP, and borrowing that project's experience, through which most district and village officials will have a clear understanding of the resettlement policy objectives, detailed resettlement program, and well defined resettlement entitlements. In addition, workshops and on-the-job training will introduce a wide range of new skills for implementing livelihood and community development.⁴

⁴ NTEC 1998, pp. 10-6 through 10-7.

