

**SOCIAL ACTION PLAN**

**GREATER MEKONG SUBREGION:**

**NORTHERN ECONOMIC CORRIDOR PROJECT**

**IN THE**

**LAO PEOPLE'S DEMOCRATIC REPUBLIC**

November 2002

**THIS IS NOT A BOARD APPROVED DOCUMENT.**

## ABBREVIATIONS

ADB	–	Asian Development Bank
JFPR	–	Japan Fund for Poverty Reduction
Lao PDR	–	Lao People’s Democratic Republic
Nam Saat	–	National Centre for Environmental Health and Water Supply
SAP	–	social action plan
TA	–	technical assistance

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## I. INTRODUCTION

1. The project road is an unpaved seasonal road, known as national route 3, in the northern provinces of Louang Namtha and Bokeo connecting Houayxay on the Mekong River and Boten on the border with People's Republic of China and is impassable for about 4 months during the rainy season. The project road comprises of approximately 228 kilometers (km) of route 3. The primary impact zone under the project influence has been defined as covering Namtha and Viangphoukha districts in Louang Namtha province and Houayxay district in Bokeo province. Nearly 2% of the country's poor and 17% of the northern region's poor reside in these three districts. The project road passes through 94 villages and towns of overall population of about 56,000 persons. Out of 94 villages, 71 villages have more than 37% of households classified as poor. The average incidence of poverty in the project area is 46.6% on population basis which is significantly above the national incidence.<sup>1</sup> Asian Development Bank's (ADB) *Participatory Poverty Assessment for Lao PDR* has classified Viangphoukha as a whole as a poor district.<sup>2</sup> The World Food Program vulnerability index ranks Louang Namtha and Viangphoukha among the most vulnerable districts in the country.<sup>3</sup>

2. All, but one, of the 94 villages through which the project road passes are ethnic minority villages. The social action plan (SAP) is designed to mitigate adverse impacts on the communities along the road and enhance project benefits to those communities. The SAP serves as an ethnic minority development plan required under ADB's *Policy on Indigenous Peoples*. The SAP has been prepared in full consultation with ethnic minority people along the road.

## II. ETHNIC GROUPS IN LAO PDR

3. The population of Lao People's Democratic Republic (Lao PDR) is characterized by an unusually high degree of ethnic diversity. There is widespread agreement among scholars that the key determinant of ethnic uniqueness is language, and that the languages spoken in Lao PDR belong to four principal linguistic families: Tai-Kadai, Austroasiatic, Hmong-Mien, and Tibeto-Burmese.

4. Languages of the Tai-Kadai, or Be-Tai family, especially the Tai branch, are spoken by about 60% of the population. Twenty-seven languages have been described in this family. Speakers of Tai-Lao, or Lao, comprise about 58% of this group, or about 35% of the total population of Lao PDR. Native Lao speakers thus represent the single largest ethnic group in the country but do not constitute a majority of the population. The Austroasiatic family, in particular the Mon-Khmer branch, is represented by 26 to 36% of the population with 59 different languages. Khmou is an example of this language family. The Hmong-Mien, or Miao-Yao, family is reflected in 6 to 10% of the population, with four languages. Kim Moun (Lanten or Lao Houay) is an example of this linguistic family. The Tibeto-Burmese family is represented in 3 to 4% of the population, with 33 languages. Lahu is an example of this linguistic group.

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<sup>1</sup> The average poverty line (rural and urban) for the Lao PDR is estimated to be equal to 19,184 kip per person per month (Lao Expenditure Consumption Survey II).

<sup>2</sup> A district is classified as poor if more than 50% of the population is below the national poverty line.

<sup>3</sup> The World Food Program vulnerability is a weighted index of six indices; net rice production, large animal per household, access to road, access to forested land, education, and health.

## A. Languages and Uniqueness

5. The classification and description of ethnolinguistic diversity in Lao PDR is a work in progress. Population movements, cultural borrowing, and confusion over terms used by insiders and outsiders to describe ethnic groups combine to complicate research efforts. Nevertheless, one salient characteristic of particular relevance to development planning has emerged to define the boundaries of ethnicity. This is the willingness or reluctance of ethnolinguistic groups to interact freely in the same community. This easily observed phenomenon helps to delimit the participatory processes of stakeholder consultations that are essential for effective social action planning. Language is the key defining characteristic of the rich cultural diversity of Lao PDR in general, and of the Northern Economic Corridor in particular.

## B. The National Language

6. The unusually open tolerance of speakers of the national language, Lao, bears special mention. Other lowland Tai-speaking minorities are frequently lumped together under the rubric of “lowland Lao” in both lay and professional discourse about the Lao PDR. This simplification does not capture the extent of ethnic diversity among lowland groups such as the Nyouan, the Phouan, or the Leu, even though their languages are to a large degree mutually intelligible with Lao because of frequent social contact.

7. An intriguing aspect of Lao, the official language of the country, is that it has never been explicitly defined in terms of pronunciation. In contrast to all other countries in Asia, there is no standard pronunciation of the national tongue. The difference with neighboring Thailand could not be greater, where central Thai, or Bangkok Thai, is the only acceptable medium of official discourse. The 20 million Lao speakers of northeast Thailand, for example, must switch to central Thai to communicate with natives of central Thailand, for whom Lao, or *Isan*, is truly a foreign language.

8. In Lao PDR, however, regional Tai languages and dialects of Lao are used interchangeably at all levels of society and Government with only slight modification in cases of ambiguity. This appears to be an unconscious occurrence rather than an overt expression of government policy. The inherent wisdom and egalitarian aspect of this phenomenon reflects an ethic of harmony in the cultural personality of the Lao people.

## III. LEGAL FRAMEWORK

### A. The Constitution

9. Article 8 of the 1991 Constitution states:

The State will carry out a policy of unity and equality between the various ethnic groups. All ethnic groups have the right to preserve and improve their own traditions and culture and those of the nation. Discrimination between ethnic groups is forbidden. The State will carry out every means in order to continue to improve and raise the economic and social level of all ethnic groups.

10. Throughout the Constitution the terms *xon phau*, *banda phau*, and *paxaxon banda phau* are used more or less interchangeably to refer to ethnic groups or ethnic citizens, making use of the old word for tribe, *phau*.

11. It appears that the intention of the Constitution is to grant equal identity to all ethnic groups by eliminating all reference to the distinctions between highlanders and lowlanders. Conspicuously, absent from the 1991 Constitution is any mention of the terminology that had been officially used to refer to ethnic minorities since 1975: Lao Loum, “lowlander”; Lao Thoeng, “midlander, uplander”; and Lao Soung, “highlander.”

12. These terms were not the creation of the Lao PDR, as many believe, but had been in use quasi officially by governments, both local and foreign, for many years—at least since the 1950s. These designations were a simplistic solution to avoid having to refer to the myriad ethnic groups by their real identities. Since the Tibeto-Burman and Hmong-Mien groups were the most recent arrivals in Laos, it is probable that the older term Phou Theng or Phou Thoeng (person + above), meaning “people who live in the mountains,” referred specifically to Mon-Khmer. Members of this ethnolinguistic family were living in Laos at the time of the arrival of Tai language speakers in the 12th or 13th centuries.

## **B. Recent Legal Precedents**

13. A series of recent laws and decisions reflect the Government’s increasing awareness of the need to incorporate the concerns of ethnic minorities into policy development in all sectors. The Department of Ethnic and Social Affairs of the Lao Front for National Construction is responsible for coordinating ethnic minority issues at central Government level and developing and implementing policies toward ethnic minorities and the mountainous regions. Guiding policies are as follows:

- (i) The Resolution of the Party Central Organization Concerning Ethnic Minority Affairs in the New Era (1992) mandated all government agencies to create a targeted plan for the development of rural, mountainous area and named the Lao Front for National Construction as the coordinating agency. This agency prepared an implementation plan in 1996 focusing on six areas of emphasis: human resources development, education, culture and society, health, national security and peacekeeping, and enhancement of the administrative mechanism for ethnic affairs.
- (ii) The objective of the National Socio-Economic Development Plan for 2001-2005 is the alleviation of poverty for ethnic minorities in remote areas.
- (iii) Forestry laws recognize customary land use rights but these clauses on traditional rights conflict with land reform efforts that have sought to shorten fallow periods and efforts to relocate ethnic villages to encourage farming in lowland areas.

## **IV. ETHNIC GROUPS IN THE PROJECT AREA**

### **A. Overview**

14. The primary social feature of the Northern Economic Corridor is the high degree of ethnic diversity found in the population along the road. To date, at least 16 ethnic groups, belonging to four ethnolinguistic families, have been identified along the project road (Table 1).

**Table 1: Languages Spoken in the Northern Economic Corridor**

<b>Language Family</b>	<b>Branch of Language Family</b>	
<b>Tai-Kadai</b>	<b>Southwestern</b>	<b>Northern</b>
	Lao, Leu, Kalom, Nyouan, Tai Dam	Nhang (Yay) <sup>a</sup>
<b>Austroasiatic</b>	<b>Khmuic</b>	<b>Palaungic</b>
	Khmou, Khmou Ou, Kwen, Ngouan	Sam Tao, Lamet, Bit
<b>Tibeto-Burmese</b>	<b>Lolo-Burmese</b>	
	<b>Southern Loloish</b>	<b>Central Loloish</b>
	Panna	Lahu Shi (Kui)
<b>Hmong-Mien</b>	Kim Moun (Lanten), Hmong	

<sup>a</sup> Names in parenthesis are the terms more commonly used by outsiders.

## **B. Distribution of Ethnic Groups**

15. The distribution of the various ethnic groups within the project area is discussed in detail in Section E.2: Geographic and Ethnic Distinctions.

## **C. Sociocultural Features of the Ethnic Groups**

16. This section provides summary descriptions of the main sociocultural characteristics of the ethnic groups along the project road. Additional relevant information may be found in Section E: Indigenous Production Systems and Section F: Poverty Level and Economic Indicators.

- (i) The Lao belong to the Tai branch of the Tai-Kadai language family. The religion of the Lao is Theravada Buddhism with strong brahmanistic and animistic foundations. Lao kinship is bilateral with a tendency toward matrilocality and village endogamy. Agriculture is predominantly paddy-based.
- (ii) The Leu belong to the same Tai language branch as the Lao. Their principal religion is Theravada Buddhism with strong animistic foundations. Kinship is bilateral with a tendency toward matrilocality and village endogamy. The Leu are predominantly paddy farmers, but they also practice supplemental swidden agriculture. Leu villages are generally readily identifiable by the unusually high house posts, usually two meters or more.
- (iii) The Leu are of particular interest in terms of the population found along the continuation of the project road where it joins the People's Republic of China National Trunk Highway 213 beyond the Lao PDR border at Boten. Here, the Leu are the majority population along National Trunk Highway 213 in Xishuangbanna<sup>4</sup> Prefecture, where the Han Chinese refer to them as the Dai, or Tai, nationality. The Leu language is often the lingua franca for discourse between Lao PDR officials in the Northern Economic Corridor and their counterparts in southern Yunnan.

<sup>4</sup> Xishuangbanna is the Chinese transliteration of Sip Song Pan Na, the name of the ancestral homeland of the Leu, meaning twelve (Sip Song) territories (Pan) of paddy fields (Na). The term pan, or phan, is used today along Route 3A in property transactions to mean 1000 m<sup>2</sup> of paddy land. Sip Song Pan Na was centered near the modern town known variously in Chinese as Jing Hong, in Lao as Xieng Houng, in Thai as Chiang Rung and in Leu as Che Li, situated on the Mekong (Lancang) River about a three hour drive from Boten. (The name of the Mekong in China–Lancang–is the name of the historical Lao Kingdom, meaning a Million Elephants).

- (iv) The Kalom are closely related to the Leu. Their religion is Theravada Buddhism, with strong animistic foundations and practices. Kinship is bilateral and they are predominantly paddy farmers.
- (v) The Nyouan are also part of the same Tai language branch as the Lao, Leu, and Kalom. Their autonym is Meuang, and their language is the predominant language of northern Thailand, the former kingdom of Lanna. Kinship is bilateral with matrilineal tendencies. Their religion is Theravada Buddhism with strong Brahmanistic and animistic foundations. They practice mainly paddy agriculture.
- (vi) The Tai Dam, literally Black Tai, are so called because of traditional female dress. Their religion is animist and totemist with ancestor cult practices and some Lue-influenced Buddhism. Unlike the groups described above, their kinship is patrilineal and they demonstrate less gender equality than the groups above. The Tai Dam are predominantly paddy farmers but they also practice supplemental swidden agriculture. The Tai Dam of the Namtha valley are skilled in sericulture.
- (vii) The Yai are from the northern branch of Tai, whereas the groups described above speak languages from the southwestern branch. The Yai are generally known by their exonym Nhang, or Nyang. Their religion is predominantly animistic with some Buddhism. Kinship is patrilineal and the main agricultural practice is paddy cultivation, supplemented by swidden.
- (viii) The Khmou belong to the Khmuic branch of the northern Mon-Khmer family of Austroasiatic indigenous peoples. Within the general population of Khmou speakers, there are sub-groups of which the Khmou Ou are the most numerous. Their religion is animistic and their kinship system is totemic exogamous patrilineal. The Khmou practice predominantly swidden agriculture, supplemented by the gathering of edible forest products.
- (ix) The Kwen are classified in the same language branch as the Khmou. Their religion is animistic with strong Buddhist influences via contacts with the Leu. Kinship is patrilineal and their agriculture is based on swidden, supplemented by edible forest products.
- (x) The Nguan, also known as Yuan or Nyuan, belong to the Khmuic branch of the northern Mon-Khmer family of Austroasiatic peoples. Their religion is principally animist but with Buddhist influence through association with the Leu. Their kinship is patrilineal and their residence tradition is patrilocal. Agriculture is mainly swidden, supplemented by forest products.
- (xi) The Sam Tao call themselves Plang but this term is so rarely used that this report refers to them by their exonym to avoid confusion. The Sam Tao are from a different linguistic tradition than the Mon-Khmer groups described above. They are part of the Palaungic branch, which includes groups such as the Wa in Burma across the Mekong from Bokeo province. The Sam Tao practice Buddhism, acquired from the Leu, but retain animist beliefs. Kinship structures are loosely patrilineal and households tend to be polynuclear, unlike the groups described above. The Sam Tao practice paddy and swidden agriculture.
- (xii) The Lamet are part of the same language group as the Sam Tao but their religion is animist with ancestor cult rituals. The kinship system consists of exogamous totemic patrilines with local endogamy. The Lamet traditionally practice swidden agriculture with 12-year fallow periods but, like many of the people along the project road, they have begun to cultivate paddy as well. Wealth is traditionally associated with bronze drums and gongs.
- (xiii) The Bit are also classified in the Palaungic branch of Mon-Khmer. Their religion is animistic, with ancestor cult and Buddhist influences from the Leu. Their

- kinship system is patrilineal and their agricultural tradition is predominantly swidden, supplemented by forest gathering of edible products.
- (xiv) The Panna are part of the Southern Loloish sub-branch of Tibeto-Burmese. Their religion is animistic with ancestor cult practices. Their kinship system is patrilineal and they practice clan exogamy. The Panna engage in predominantly swidden agriculture with supplemental gathering of forest products.
  - (xv) The Lahu-Shi belong to the central Loloish branch of Tibeto-Burmese. Their religion is animistic with ancestor cult practices. The kinship system is patrilineal and they practice ethnic endogamy. The Panna are swidden farmers who supplement their diets with edible products gathered from the forest.
  - (xvi) The Kim Moun are seldom known by this autonym by outsiders who commonly refer to them as Lao Houai or Lanten. They belong to the Mien (Yao) branch of Hmong-Mien. Like the Mien, the religion of the Kim Moun is Taoist. Their kinship is patrilineal and their residential pattern is plurinuclear. The Kim Moun practice swidden agriculture, supplemented by the gathering of forest products. Unlike most other ethnic groups, they do not thresh rice before storing it in granaries. Kim Moun women are easily recognized by the absence of eyebrows, which they pluck at puberty.
  - (xvii) The Hmong are among the most recent ethnic groups to arrive in Lao PDR, having come in two waves: the first in 1810 and the second after 1860. Their religion is animist. Their kinship system is based on exogamous matrilineal clans<sup>5</sup> in which polygyny is practiced among the more prosperous members. The Hmong traditionally practice swidden agriculture but are adaptable to making the transition to paddy farming.

#### **D. Land Tenure**

17. Since 1997 the Land Law has provided the primary legal basis for the Land-Forest Allocation Program. The Land-Forest Allocation Program was originally conceived as a way of preventing illegal logging by provincial and district entrepreneurs by giving villagers ownership of forest resources through a process of participatory land use planning. However, the original intention became diluted through the intervention of the program to reduce shifting cultivation and through the rural development approach of bringing villages to services (as opposed to taking services to villages), which involved village relocation and consolidation. Land-forest allocation is premised on the lowland notion that permanent agriculture is comprised only of paddy cultivation, gardens, orchards and plantations. These are not subject to reallocation since they are classed as permanent and land title is given automatically, provided it can be verified by local authorities. Swiddening, on the other hand, is considered impermanent and is therefore the target of the national goal to “reduce shifting cultivation” in the name of “stabilization”. The Land-Forest Allocation Program issues temporary land certificates to upland farms only if they meet the “permanent” criteria.

18. In principle, obtaining land use rights under the Land-Forest Allocation Program begins with the issuance of a temporary land use certificate that is valid for 3 years. At the end of the period, if land is used as specified, a land title for long-term use may be requested. It may be inherited, sold, and leased according to land registration procedures and land tax payment requirements. Land-Forest Allocation is a government policy designed to assist villages with

<sup>5</sup> The small size of Hmong villages, typically six households, combines with this clan-based system to produce a significant number of first cousin marriages wherein women’s blood relationships are superseded by their affiliation with the clan of their husbands. Albinism and other genetic abnormalities are found among children of these unions.

high quality land use planning and titling, however, implementation has often not followed the policy and has caused severe hardships for many swidden cultivators.

19. The worst problem has been reduction of fallow periods to 3 to 4 years from the original fallow cycles of an average of 15 years and longer. Adequate “permanent” livelihood substitutes have not been successful. Most families are given paddy land that cannot be cultivated due to poor soils or lack of water and no technical assistance to support either paddy or permanent upland cropping. Suitable paddy land, especially in mountainous zones, is not enough to meet the needs of the program, leaving villagers with no alternatives. As evidenced by the recent ADB-funded Participatory Rural Poverty Assessment where many rural families identified land allocation as one of the causes of impoverishment, this land allocation methodology needs to be modified before it can successfully achieve its aims in areas with severe topographic and demographic constraints as in the Project’s mountainous areas.

20. Rights of women, with respect to land titling, include the right of certification and the right of inheritance of lands and other assets. Although a considerable proportion of inheritance accrues to women, only a fraction of this is registered in the name of the wife, notwithstanding the fact that males and females have equal right under the Land Law of Lao PDR. The low level of women’s registration is attributable to (i) lack of knowledge of ownership rights on the part of women; (ii) cultural reluctance on the part of women; (iii) low levels of female literacy and education, particularly in the remoter rural areas; and (iv) lack of capacity and awareness of gender issues on the part of the certifying officers.

21. A standardized land titling system for private land tenure has been developed for urban and peri-urban areas. This system forms the basis for levying of land tax as specified in the Decree on Land Tax. For the rural areas, the Government has carried out initial land allocation in the territories of about 50% of all rural villages nationwide. In the Northern Economic Corridor, a land tax document, or “yellow paper,” is held by many homeowners along the road, particularly in areas near the towns of Houayxay and Namtha. This document, entitled “land claim paper for paying land taxes,” includes a property description, a surveyed plan keyed to boundary markers, and a listing of adjacent property owners. This information is sufficient to allow upgrading to a formal title deed, which is government policy. The process is likely to be lengthy, however because of constraints on administrative personnel and budget support. The government places higher priority, however, on extending the land tax document to all homeowners as a means of increasing tax revenue and broadening administrative documentation of property.

22. The World Bank is financing a land titling project to assist the Government with its urban land-titling program. The project has not yet extended to Louang Namtha or Bokeo, although dialogue is ongoing with the government to consider extending it to the project area. This would enable all households in the project villages to be issued with land titles on a priority basis. The World Bank land-titling project is also addressing the constraints to land registration in women’s names.

## **E. Indigenous Production Systems**

### **1. Swidden and Paddy**

23. The swidden and the forest define the universe of most of the highland indigenous peoples along the project road. The differences between lowland paddy culture and highland swidden culture, which is the world view and belief systems of the people, can usefully be

described in terms of geographic focus. Paddy culture is centered on life in the village while swidden culture is centered on life in the swidden fields. The agricultural systems of the paddy farmer and the swidden farmer are key determinants of their cultural beliefs. The patterns of sedentary agriculture and shifting agriculture also reflect key aspects of the vulnerability of cultural heritage in the face of outside pressures for change.

#### **a. Paddy Culture**

24. Lowland paddy culture reflects life in the village, surrounded by paddy fields that nourish the community. Beyond the paddy fields lies the forest, usually separated from the paddy fields by lightly wooded secondary forest. The geography, both physical and cultural, may be thought of as concentric rings around the flat terrain of the village with the paddy fields in an intermediate ring and light forest in the outermost ring. The forest begins on the hill slopes beyond the paddy. Although the forest can provide useful resources to the lowland paddy farmers, the forest also represents a zone of uncertainty and danger beyond the stability of the paddy fields and the village at the center.

#### **b. Swidden Culture**

25. Swidden culture is centered on the forest rather than the village. Indigenous hill people spend 6 to 9 months of the year in the forest and the swidden. The fields they cultivate represent the innermost circle for them, surrounded by the forest. Villages are located away from swidden fields, usually at lower elevations deemed suitable for settlements. As the swidden fields rotate to new locations each year, so do the people. New temporary field huts are built each year and the village itself may move to a new location in response to epidemics or other pressures.

26. The forest provides direct sustenance to the indigenous people who gather its natural products. It also provides the basis for swidden agriculture through its ability to regenerate soil fertility during fallow periods of 8 to 20 years, depending on soil quality and cultivation practices. Although rice yields of swidden fields can approach the yields attained in traditional paddy fields, the increasing use of high yielding seed varieties in paddy cultivation now produce several times the yield per hectare of swidden.

27. Swidden fields also provide a wealth of other food crops that are interspersed with rice or grown on the fringes of the swidden. An even greater variety of edible products are available in the forests to supplement swidden crops and to make up the food deficits that result from poor harvests. Interviews with highland swidden cultivators reveal knowledge of hundreds of types of foodstuffs—knowledge acquired over many hundreds of years in the case of some of the Mon-Khmer inhabitants of the Northern Economic Corridor.

#### **c. Swidden Practices**

28. Two types of swidden cultivation are practiced along the project road: pioneering and rotational. Pioneering cultivation involves the periodic movement of a group or village into a new location, typically one that is densely forested. The area is then cut and cropped until the soil fertility is depleted. At this point, the villagers either continue to clear more land nearby or relocate the village. The abandoned area is left in a depleted condition in which regeneration of forest and soils takes many years. This type of swidden cultivation is nonsustainable and is the legitimate target of public programs to limit it. Fortunately, this type of swidden cultivation is becoming less common along the project road.

29. Rotational cultivation is carried out by quasi-sedentary villages that shift cultivation among a number of existing swidden fields. The land is partially cleared of brush, scrub, and trees smaller than 25 centimeters in diameter. This plot is then cropped for one to three seasons, depending on soil fertility. Some rotational cultivation systems have as many as 12 to 20 years of fallow periods between cultivation. In its traditional form, rotational cultivation is a sustainable system, however, attempts to drastically shorten the fallow periods do not allow sufficient time for soil regeneration.

## **2. Geographic and Ethnic Distinctions**

30. In general, the Hmong-Mien and Tibeto-Burmese cultivate swidden near the tops of mountains, the Mon-Khmer practice shifting cultivation on middle slopes, and the Tai practice it by encroaching on marginal and forested lands on the lower slopes.

31. The Hmong are usually the ethnolinguistic group cited for the most destructive form of swidden culture—pioneering slash and burn. They are relative newcomers to Laos, unlike the Mon-Khmer groups who have developed sustainable swidden agriculture over centuries of experience. Unfortunately, the ecologically unsound swidden practices of the Hmong, and only some of the Hmong at that, have been inaccurately attributed to other indigenous peoples who practice sustainable swidden agriculture.

32. Government officers report that the Hmong tend to be the best candidates for the transition to paddy culture because of their tireless work habits and their skills in animal husbandry. Hmong oral history also refers to the practice of paddy culture in ancestral lands, not unlike the Hmong rice farmers in present day Quangxi province of southern China. The Hmong are technologically highly adaptive and if sedentary agricultural programs are well conceived, success is probable. The danger lies in relocation without proper preparation.

33. In neighboring Thailand, where the Hmong account for a lower percentage of the total population, the transition to more sedentary agricultural practice has come about largely as a result of infrastructure development. Hmong people in several provinces there have moved into barren hills, developed vegetable and fruit farms, introduced cattle and pig raising, and initiated other activities that have blossomed into viable economic enterprises, all dependent on the excellent network of highways that has allowed access to markets. A study of the Hmong experience in Thailand could be beneficial to Lao PDR.

## **F. Poverty Level and Economic Indicators**

### **1. Basic Indicators of Poverty**

34. Table 2 provides basic indicators of the socioeconomic status of the ethnic communities along the Northern Economic Corridor, with particular reference to poverty.<sup>6</sup> There is a wide difference among villagers with respect to the several indicators of poverty. Key elements of the tables are expressed as follows:

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<sup>6</sup> The individual household survey instruments used during the technical assistance sought to ascertain income information on affected persons. Responses, however, were unreliable, reflecting the specialized nature of household income and expenditure surveys.

- (i) Rice shortages are expressed in terms of the number of months that the average family is without rice. The number of affected families shown in the tables is generally the same as the total number of families in the village. Exceptions to this appear in large settlements, such as Thiao (the district seat of Viangphoukha), where rice deficient families comprise a discrete group. The data shown for rice shortages are from the 2001 harvest, but they are not available for every village because of time and staff constraints in the district departments of agriculture responsible for conducting surveys. The reader will note that villages in Houayxay district tend to be relatively well off to such an extent that data on rice self-sufficiency is no longer routinely collected. Instead, the area of land under cultivation is surveyed as a proxy measure of poverty.
- (ii) The column labeled “Percentage in Poverty” shows the percentage of families classified as poor in 2001. The poverty classification is calculated as follows: Income and expenditure surveys are carried out for each family to determine average monthly income during the year. If average monthly per capita income exceeds 100,000 kip (\$10.50), the family is considered to be above the poverty line. If not, the survey enumerator probes for the following information: (a) Does the family consume an average of at least 16 kilograms unmilled rice (approximately 10 kilograms of milled rice) per person per month?,<sup>7</sup> (b) Does the family have adequate clothing?, (c) Is the home of permanent construction?, (d) Does the family have enough money to treat illnesses?,<sup>8</sup> and (e) Does the family have enough money for educational expenses? All five topics must be answered in the affirmative for the family to be classified as non-poor.<sup>9</sup>
- (iii) Buffalo and cattle are key components of family wealth comprising assets to be liquidated in hard times. The number of livestock in relation to the population is an excellent proxy indicator of the underlying social safety net of the community. Communities with high percentages of poor families and few livestock are living on the margin. Data on livestock, however, are not available for every village due to staff and time constraints among government officers. Where available, the tables presents data on smaller livestock raised in the villages.

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<sup>7</sup> Equivalent to less than 50% of the average caloric nutritional requirement.

<sup>8</sup> International Food for Agricultural Development experts in rural development find that the answer to this question alone correlates quite well with poverty status.

<sup>9</sup> Lao PDR authorities also designate certain villages as poverty villages based on the following procedures: (i) If fewer than 51% of families in a village are classified as poor, one point is given; (ii) An additional point is given for (a) a functioning school in or nearby the village, (b) the availability of public health services, (c) the use of clean water, and (d) road access to the village; (iii) Five points are required to be classified as a non-poverty village. This report is based on detailed family-level poverty criteria.

Table 2: Poverty Indicators in the Villages

Village Name	Ethnic Group	Population (2001)	Percentage in Poverty	Cultivated Land (hectares)		Large Livestock	
				Paddy	Swidden	Buffalo	Cattle
Pa Oi	Nyouan, Lao, Khmou	981	2%	20	2	6	17
Ou Dom	Tai Dam, Khmou	643	2%	11	7	20	5
Pak Hao Neua	Lao, Tai Dam, Leu	537	2%	36	0	0	10
Mok Ka Chok	Lamet	488	8%	24	46	9	4
Nam Ho Tai	Lamet	732	10%	15	46	2	50
Mai Phu Kha	Leu	437	3%	66	0	47	180
Pa Sang	Sam Tao	217	19%	12	15	0	20
Na Le	Lamet, Lao	274	2%	21	1	16	114
Nong Ngeun	Leu, Lao, Khmou	243	4%	21	2	5	67
Siang Ngan	Lamet	227	14%				
Houei Sa La	Hmong	778	14%				
Thong SengChan	Lamet	782	8%	123	8	8	290
Mai Ni Nyom	Lao	105	20%	3	0	0	120
Sai Cha Leun	Khmou	213	50%	10	7	0	65
Nam Toi	Lamet	286	18%	17	5	5	80
Mai Hia	Lamet, Kalom, Khmou, Lao	223	16%	10	5	0	12
Don Nyeng	Kalom	252	18%	22	2	12	50
Mai Nyang	Lamet	170	7%	8	11	0	15
Nam Chang	Kim Moun (Lanten)	153	27%	12	3	20	25
Phon Thong	Leu	340	11%	46	0	60	130
Bo Lek	Khmou Ou	495	9%	392	1	25	40
Phou Sen	Khmou	144	22%				
Nam Ngao	Leu, Khmou	230	81%	12	22	64	30
Pang Pot	Lamet	145	14%	15	6	18	10
Phou Leup	Khmou	262	4%				
Nam Pou	Lamet	437	40%	14	3	100	80
Nam Phet	Hmong	726	10%	24	51	42	67
Nam Mak Keo	Khmou	84	95%	4	7	9	27
Toup	Hmong	188	29%	4	30	55	45
Nam Ma	Lamet	381	29%	35	61	31	69
Houei Din Chi	Lamet	159	32%	11	16	10	38
Nam Deua	Sam Tao	527	37%	56	85	9	87
Chom Keo	Khmou	166	30%	13	20	51	16
Don Phao	Lamet	217	43%	10	21	30	7
Pho Kham	Khmou	221	77%	11	9	11	12
Phi Mon Sin	Leu	474	4%	103	1	327	386
Nong Kham	Sam Tao, Lamet	369	32%	12	13	16	8
Poung	Leu	604	4%	123	0	203	384
Na Luang	Lamet	301	37%	20	35	41	0
Nam Thoung	Lamet	358	29%	19	19	84	12
Na Ngam	Lamet	303	29%	21	18	42	8
Nam Seo	Lamet	271	46%	3	57	14	3
Don Kham	Lamet	151	39%	6	17	10	11
Don Chai	Leu	260	13%	33	10	97	118
Houai Ha	Hmong	115	20%	13	1	32	50
Pang Sa Lao	Lamet	306	28%	14	12	33	45
Tha Fa	Leu	580	1%	59	15	286	160
Mok Houk	Khmou	258	35%	0	59	6	10
La Kon	Khmou	108	65%	0	9	15	10
Pha Poun	Khmou	84	67%	0	5	15	15
Satoun Neua	Khmou	264	42%	0	50	30	20
Sot <sup>a</sup>	Lamet	245	50%	0	20	17	12

<sup>a</sup> Last village in Houayxay district of Bokeo province.

Source: ADB. 2002. *Draft Final Report for Preparing the Northern Economic Corridor for the Lao PDR*. Manila.

Continued on next page

Table 2: Poverty Indicators in the Villages—Continued

Village Name	Ethnic Group	Population (2001)	Percentage in Poverty	Rice Shortages		Large Livestock		Small Livestock	
				Family	Months	Buffalo	Cattle	Swine	Goats
Nam Pa Man	Khmou	358	100%	21	3.9	4	0	71	0
Tha Luang	Khmou	214	86%	29	3.9				
Thong Lat	Khmou	182	100%	34	4.7				
Nam Noi	Khmou	572	100%	28	4	3	0	66	0
Nam Kap Tai	Khmou	483	100%	16	4.8				
Nam Kap Neua	Khmou	252	100%			5	0	97	0
Nam Phe <sup>a</sup>	Khmou	644	87%			43	45	199	78
<i>Phou Lan</i>	Nguan	273	79%			43	16	77	42
Nam Chari	Nguan, Lamet	348	70%			19	0	88	11
Pang Sai	Nguan	166	79%			58	0	66	47
Lai Lot	Nguan	219	84%	13	4.2	49	0	59	26
Nam Ngeun	Leu	416	46%			89	6	85	0
Sa Kon	Khmou	321	75%	33	3.1	37	0	59	26
Phon Thong	Nguan	482	87%			36	0	44	25
Nam Fa	Nyang	647	46%			113	8	121	0
La Non	Kwen	188	98%	17	3.6	29	12	43	26
La Ve	Leu	231	76%			28	0	57	47
Kam Pon	Nguan	272	98%	31	5.2	28	0	57	47
Nam Mang Thiao	Nguan	358	95%	27	4.3	47	0	85	25
	Sam Tao, Lahu Shi, Khmou	928	77%	37	3.9	215	39	322	35
Dong Viang	Leu, Lao, Khmou	1,283	76%			160	49	297	29
Mai	Nguan	456	96%	31	4.2	131	8	197	38
Pha Deng	Nguan	285	95%	30	3.7	46	4	110	39
Nong Kham	Kwen	557	78%	8	3.6	185	0	1,760	59
Nam O	Kwen	694	93%	40	5.4	108	125	139	32
Nam Eng	Kwen	389		20	5.5	55	0	76	8
Nam Vang	Hmong	776	93%			48	59	1,215	10
Phu Lan	Kwen	269	98%	25	7.4	49	0	89	33
Nam Sing	Kwen	255	84%	10	5	85	0	97	28
Nam Loung	Nguan	217	98%	30	3.6	29	0	94	44
Ta Long	Lamet	186	85%	27	2.7	25	0	99	31
Prang <sup>b</sup>	Kwen	156	94%	30	6	16	0	89	0
Khoua Soung <sup>c</sup>	Khmou, Nyouan	225	86%	132	4.5	31	36	450	
Tha Se	Khmou, Sam Tao	553	95%	95	7	63	12	200	
Chaleun Souk	Kwen	369	70%	56	7.5	79	45	131	
Nam Leu	Kim Moun (Lanten)	379	70%	61	2.6	61	36	157	
Don Moun	Kim Moun (Lanten)	759	70%	174	6.3	14	14	121	

<sup>a</sup> First village in Viangphoukha district of Louang Namtha province.

<sup>b</sup> Last village in Viangphoukha district.

<sup>c</sup> First village in Louang Namtha district.

Continued on next page

**Table 2: Poverty Indicators in the Villages—Continued**

Village Name	EthnicGroup	Population (2001)	Percentage in Poverty	Rice Shortages				
				Family	Months	Buffalo	Cattle	Swine
Na Leu	Tai Dam	280	58%					
Mai	Tai Dam	296	62%					
Poung/ Don Le	Tai Dam	1,058	34%					
Na Noi	Tai Dam	346	61%					
Phon Sai Sawang	Khmou, Lao	747	7%	120	6.8	27	14	148
Tha O	Khmou, Leu, Nyouan	281	51%	51	3	36	5	73
Don Khoun	Nyouan, Kalom	841	78%	174	3	57	88	131
Khon	Kalom	1,044	58%	174	3.7	112	45	163
Luang	Nyouan, Kalom	1,596	41%	260	4.7	93	53	205
Viang Tai	Nyouan, Kalom	552	14%	100	1	2	0	37
Viang Neua	Nyouan, Kalom	1,095	26%	173	8.8			
Thong Om	Tai Dam	1,069	31%	158	1.3	37	92	156
Houa Khoua	Tai Dam	876	37%	132	2.3	129	92	182
Nong Boua Viang	Municipal zone of Namtha town <sup>a</sup>	175	23%	120	6.5	23	13	159
Ou Dom Sin	Municipal zone of Namtha town	959	14%	154	8.5	53	54	105
Phon Sai	Municipal zone of Namtha town	988	18%	162	7.2			
Sai Som Boun	Municipal zone of Namtha town	1,167	64%	193	2.5	63	41	141
Viang Thong	Municipal zone of Namtha town	715	62%	120	3.8	13	12	117
Viang Ngeun	Nyouan, mixed	706	16%	115	6.9	23	23	179
Thong Chai Neua	Tai Dam	1,033	26%	158	4.5	134	96	49
Thong Chai Tai	Tai Dam	490	44%	76	2.3	43	31	103
Pa Pouak	Tai Dam	518	53%	78	2.5	83	40	74
Thong Di	Tai Dam	611	38%	92	1.3	71	107	771
Nam Thoung	Leu	839	19%	145	0	136	36	48
Bom Phiang	Bit	422	72%	73	6	59	8	100
Ta Van	Khmou	207	93%	38	0	4	10	78
Nam Deng	Kim Moun (Lanten)	313	98%	48	8.5	0	28	91
Houai Dam	Khmou	349	61%	54	4.1	74	85	121
Houai Hom	Khmou	225	85%	37	2	36	33	58
Na Teui	Khmou, Lao	1,039	71%	187	6.5	51	79	269
Tin Tok	Khmou	384	79%	96	2	37	29	78
Bo Piat	Pa Na	314	44%	53	4.5	55	21	54
Boten	Leu	863	31%	158	9	113	91	90

<sup>a</sup> Nyouan, Lao, Tai Dam, Kalom, Khmou, and other ethnic groups clustered in Namtha municipality.

35. The villagers located along the project road range from impoverished peasants, who eke out a marginal existence, to small farm entrepreneurs, who are able to respond to the market opportunities associated with improved transportation. The economic status of villagers is reflected generally in the crops they harvest and the assets they possess, but labor is often a main determinant of security among the traditional highland societies that practice swidden agriculture.

## 2. Gradations in Poverty Along the Project Road

36. Table 2 provides vivid evidence of the depth of poverty that characterizes most of the 230 km length of the project road. However, it should be noted that socioeconomic status varies

considerably along the road, from threatened highland minorities to the less destitute lowland communities, particularly those close to the towns of Namtha and Houayxay.

#### a. The Peri-Urban Income Relationship

37. The average annual incomes of the people in the first five villages along the road north of Houayxay vary almost directly with distance from the provincial capital. Table 5 illustrates the distance-income relationship that was first noted in a 1997 social impact assessment (TA 5728–REG: *Chiang Rai-Kunming Road Improvement via Lao PDR Project*), a relationship that has been confirmed in this study.

#### b. Increases in Off-Farm Income

38. While the income relationship with distance has remained consistent over 5 years, there have been significant changes in the importance of nonagricultural economic activities. Hire labor, in particular, has become a much more important source of income. Three mining companies involved in sapphire extraction provide opportunities for day laborers in the development of exploratory holes and other labor-intensive work. Construction projects in the Houayxay area also provide employment. Hire labor opportunities are found across the Mekong in Thailand, where higher wages offset the lack of legal safeguards for undocumented laborers from Lao PDR.

#### c. Losses of Agricultural Resources

39. The shift to off-farm employment has, in part, been due to the loss of irrigation sources which has forced reductions in the area of land under cultivation.<sup>10</sup> Although the total population of these villages has increased by 28% over the past 5 years, the area of land under cultivation—paddy, swidden, and garden—has declined by 48%, a direct result of water shortages caused by the recent destruction of nearby watersheds.

- (i) The amount of paddy land under cultivation has declined from a total of 172 hectares in 1996 to 105.4 hectares in 2001, a reduction of 39%.
- (ii) The amount of land devoted to gardens has decreased by 54%, from 90.6 hectares to 41.1 hectares.
- (iii) The area of swidden has declined by 54%, from 218.8 hectares in 1996 to 101.3 hectares in 2001. (The decline in swidden cultivation also reflects official pressure to abandon the practice).

40. Table 3 illustrates the rapid changes taking place in the agricultural practices of five villages located along the project road near Houayxay.

**Table 3: Distance from Houayxay and Income of Villagers**

Village Name	Pa Oi	Ou Dom	Pak Hao Neua	Mok Ka Chok	Nam Ho Tai
Distance from Houayxay (km)	5.7	6	6.5	7.8	9.0
1996 per capita income (\$)	162	127	141	68	56
2001 per capita income (\$)	190	172	121	84	80

Source: ADB. 2002. *Draft Final Report for Preparing the Northern Economic Corridor for the Lao PDR*. Manila.

<sup>10</sup> This trend is not conclusive as it is probable that higher labor rates and access to alternative has made traditional farming less attractive.

41. Along with large reductions in the area of cultivated farmland, the number of key agricultural livestock—buffalo and cattle—have declined dramatically in these five villages during the past five years.<sup>11</sup> The number of buffalos has declined by 68%, from 111 to 35. The number of cattle has declined by 75%, from 347 to 86.

42. The decline in the livestock population reflects not only the degradation of the watershed and the decreasing viability of traditional agriculture but also reflects two growing trends in asset shifting. Motorized hand tractors have largely replaced water buffalo in this area for the cultivation of rain-fed paddy, and the quality of house construction has improved significantly as people have transformed disposable assets into better housing.

43. The increasing use of motorized hand tractors is also found in the more prosperous communities near Louang Namtha, although many farmers state that they miss the improved soil fertility and the deeper plowing associated with buffalo. Buffalo, however can no longer be left to roam because of theft, and the authorities will not allow them to be kept near the road.

### **3. The Poor at Greatest Risk**

44. The heaviest concentrations of poverty are found among the predominantly non-Tai villages located farthest from urban centers. Declining swidden yields and shrinking forest reserves appear to be challenging the poorest of the poor along the project road as never before.

#### **a. Declining Swidden Yields**

45. Swidden yields have been in decline in recent years. The principal factor cited by the indigenous people themselves is the implementation of the Land-Forest Allocation Program. Program managers have focused on reducing the areas allocated for swidden to a maximum of 3 fallow years, returning to the original field in the fourth year. Yields have fallen as a direct result of the erroneous assumption that traditional fallow periods of 10 to 20 years can be shortened to 4 years.

46. Official planning targets for Bokeo province project that the amount of swidden under cultivation will be reduced to zero in the year 2005. Provincial officials in Louang Namtha speak of a 70% reduction in swidden cultivation by 2010. To the extent that these targets are achieved, the viability of indigenous cultures based on swidden systems will be challenged. Crucially, the interdependence between the swidden system and the cultural heritage of the people who practice it is not understood by the administrators of the Land-Forest Allocation Program.

#### **b. Declining Forest Reserves**

47. The ethnic groups who practice swidden culture have also come under increasing challenge of a more serious nature. A great variety of edible products are available in the forest to supplement swidden crops and to make up the food deficits that result from poor harvests. Interviews with highland swidden cultivators reveal knowledge of hundreds of types of foodstuffs, which together provide the essential caloric and protein requirements necessary to avoid starvation when the swidden harvest is exhausted. The indigenous knowledge of

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<sup>11</sup> It should be noted that buffalo and cattle have been a major export item from Lao PDR to Thailand over recent years.

sustainable swidden technology that has been practiced for generations by many of the people along the project road may be inadequate to offset the reductions in forest reserves caused by commercial mechanical logging.

#### **c. Logging and Habitat Loss**

48. Commercial mechanical logging may potentially reduce the habitat of the indigenous people along the project road. The damage done by this type of logging is essentially permanent and, unlike the adverse impacts of the Land-Forest Allocation Program, cannot be reversed by changes in implementation policy. Commercial mechanical logging damages the biological diversity that enables the indigenous people of the project road to survive shortfalls in swidden harvest. It cuts the safety net that has sustained these people for hundreds of years.

#### **d. Logging and Watershed Loss**

49. Commercial mechanical logging also compromises the Land-Forest Allocation Program by damaging the watersheds required to support existing irrigation systems. These irrigation systems are intended to expand the cultivation of existing paddy fields and to develop new lowland paddy. Irrigation systems depend on gravity fed water from viable watersheds. Commercial mechanical logging destroys watersheds, however, as the existing road provides all weather access to most of the road length, any acceleration will be very marginal.

50. The practice of swidden agriculture is a central aspect of the traditional cultures of the ethnic people along the project road. The elimination of swidden agriculture, whether by government program or by logging, cannot have profound implications for the viability of the physical and cultural habitat of the inhabitants of the Northern Economic Corridor and for the very survival of their unique cultural heritage.

### **V. PROJECT IMPACTS ON ETHNIC GROUPS**

#### **A. Potential Positive Impacts**

51. The following are potential positive impacts that the project road improvement project will have on ethnic groups:

- (i) An all-weather project road will greatly expand the options for commerce and employment among the people in the Northern Economic Corridor. This will provide more efficient transportation which will reduce the costs of production for farm and non-farm activities, marketing opportunities which may improve since the road opens a wider vent for surplus, and access to larger markets for consumers to access many more villages.
- (ii) Representatives of official and nongovernmental agencies will be more efficient in serving client populations along the project road. The following are potential positive impacts to this effect:
  - (a) Lao PDR officials may be better able to enforce rational logging practices and other general government regulations and laws.
  - (b) Easily preventable communicable diseases, both human and livestock, may decline as the road facilitates access by public health and veterinary services.

- (c) Reduced transportation costs will lower costs for maintenance of new and existing government facilities such as schools, medical clinics and other services.
  - (d) Provide a higher level of security of law and order.
- (iii) Opportunities for training and education may expand as the road reduces the isolation of communities in the corridor.
  - (iv) Lower transportation costs will allow people to transfer household expenditure to more socially effective areas.

## **B. Potential Negative Impacts**

52. The potential negative impacts that the project road improvement project will have on ethnic groups may be summarized as follows.

- (i) An all-weather project road will marginally increase year-round opportunities for commercial mechanical logging. Highland indigenous people may incur further losses to their habitat, their food security, and their cultural heritage as a result of continued commercial mechanical logging. Lao PDR programs will develop irrigation systems to expand paddy production. This may be undermined by the damage to watershed areas caused by continuing commercial logging.
- (ii) Approximately 2,500 people (502 families) along the reduced impact corridor may be adversely affected by the loss of 543 homes, 133 rice granaries, 61 small shops, 1.7 hectares of residential land, and 122 hectares of agricultural land which are mostly rice paddies. Mitigation measures may not meet Lao PDR and ADB resettlement standards for full compensation if current restitution practices are followed.
- (iii) The number of road accidents may increase due to greater traffic, higher speeds, alcohol use, and instinctive reactions by left-side drivers from Thailand.
- (iv) Communicable diseases, including HIV, may increase as a result of greater exposure to construction workers and road users.
- (v) Higher rates of marriage and more unwanted pregnancies may result from improvements in health status and economic well-being.

## **C. Mitigation Measures for Potential Negative Impacts**

53. The discussion that follows summarizes these impacts and suggests mitigation measures to minimize their effects on the ethnic groups in the Northern Economic Corridor.

### **1. Logging Activities**

#### **a. Support for Changes to Current Logging Practices**

54. There has been the strong and enthusiastic reaction of Lao PDR officials to the notion of stricter controls on logging. The reasons for the officials' enthusiasm had little to do with habitat destruction or losses to traditional indigenous cultures but the positive reactions to the idea of halting the continuing loss of precious, essentially irreplaceable, national resources to wealthy buyers in foreign countries, with very little local value added.

### **b. A Viable Alternative to Current Logging Practices**

55. This would involve community-based lumber extraction in which no power equipment is used. Trees are felled by hand and are dressed into billets with two-man saws. No logging roads are needed to bring out the billets. The rate of destruction of the forest is decreased. Value may be added to the timber to the extent that woodsmen are able to cut billets to marketable specifications. Villagers receive income for labor and participate in the management of the community asset. Lumbering, not logging, takes place.

56. There is only one small precedent for this type of enlightened forest management in Lao PDR and it has barely gotten underway. There is hope that the proposed Japan Fund for Poverty Reduction (JFPR) Project for the Nam Ha Watershed could contribute to the development of a rational lumbering policy. There would likely be a practical limit to which this could be implemented while still bringing optimal economic development along the project road.

### **c. Mitigation Measure**

57. There are no specific additional measures required for changes to logging controls but every effort must be made to enforce current timber laws and implement recently approved regulations and controls along the project corridor.

## **2. Affected Persons Resettlement**

### **a. Standards for Compensation**

58. The issue of adequate resettlement compensation is derived from the substantial differences in levels of compensation characteristics of recent Lao PDR experience and the standards established in both Ministry of Communication, Transport, Post and Construction and international standards. These standards call for full compensation so that affected persons are at least as well off, if not better off, than before the loss of assets from road construction.

59. Recent resettlement experience in the districts of Houayxay and Louang Namtha has not been up to Ministry of Communication, Transport, Post and Construction or international standards, primarily because of severe budgetary constraints.

### **b. Mitigation Measures**

60. A resettlement plan has been prepared in accordance with ADB's *Policy on Involuntary Resettlement*. All affected persons will be compensated and assisted so that their social and economic well-being is restored to preproject levels or better.

## **3. Road Accidents**

### **a. Sobriety Enforcement**

61. Accidents are the second leading cause of death in Thailand, slightly below heart disease but significantly higher than cancer. Thailand's highway death toll has been cited as one of the highest in the region. Major contributing factors include driver recklessness and use of alcohol and methamphetamines, the latter especially by long-haul truckers. The Lao PDR should take steps to prevent a similar pattern of careless abandon from developing on the project road.

62. An important factor in the rate of accidents is the almost total lack of police enforcement of traffic laws by moving vehicles. Speeding and intoxicated drivers are permitted to wreak havoc on the open road without interference from stationary police posts. Highway patrols are virtually non-existent and road travel at night is especially hazardous.

**b. Left-Hand Drivers**

63. Drivers from Thailand who travel on the project road may instinctively bear left and create hazardous situations, particularly in two situations. Drivers turning at intersections may instinctively end up in the wrong lane. Drivers on long sections of road with no traffic may bear left when an oncoming vehicle suddenly appears around a bend. Unconscious reaction may take over in these situations.

**c. Aid for Accident Victims**

64. Neither Bokeo province nor Louang Namtha province has an ambulance. The public health departments in both provinces have specifically requested that ambulances be included as part of the road improvement project to cope with the anticipated increase in road accidents.

65. Neither Bokeo nor Louang Namtha has an adequate trauma center such that drivers entering Lao PDR at Houayxay and Boten should be explicitly advised to exercise extreme caution throughout their journey.

**d. Mitigation Measures**

66. Mitigation measures should include simple checks for sobriety at border crossings and checkpoints along the route. Lao PDR police should be prepared to arrest reckless drivers and impose sanctions for violations of traffic regulations.

67. Mitigation for Thai right hand-drivers may require the posting of Thai language highway signs along the project road to reminding drivers to keep to the right. Mitigation for accident victim aid would include adequate signage and provision of ambulance facilities. The Project will include a road safety program to address some of the above issues.

**4. HIV/AIDS/STD<sup>12</sup> and Trafficking**

**a. Background on the Spread of HIV/AIDS/STD**

68. The potential spread of HIV/AIDS along the Northern Economic Corridor is one of the concerns most frequently raised by officials at all levels. In the short term, the Project is expected to employ large numbers of relatively well-paid men during the 3-year period of construction. In the long term, the road is expected to attract increasing numbers of businessmen, tourists, and truck drivers—all potential HIV vectors.

69. In 1997, the U.S. Centers for Disease Control and Prevention noted that:

Although Laos has so far avoided the high rates of HIV infection affecting nearby populations in Burma, Vietnam, Cambodia, and Thailand, the epidemic remains a

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<sup>12</sup> Human immunodeficiency virus/acquired immunodeficiency syndrome/sexually transmitted disease.

serious threat. As Laos begins to capitalize on its location at the heart of the sub-region, as a transit point or hub for increased trade and interaction with and between neighbors, the risk and vulnerability to HIV of once isolated communities will also rapidly increase” said United Nations resident coordinator Anne Sutherland at a recent AIDS conference. Increasing urbanization and population mobility, coupled with rising rates of drug use and a burgeoning prostitution industry, could facilitate a burst in infection rates.<sup>13</sup>

70. Similarly, a recent report on HIV vulnerability and population mobility in the northern provinces of Lao PDR stated that:

Because of the economic importance and the consequent large numbers of people who will be traveling, perhaps the single most important route to monitor from an HIV/AIDS perspective is Route Three, the Lao link, from Houayxay to Boten, between Chiang Rai and Kunming.<sup>14</sup>

71. This same study identified the main types of customers in establishments that employ service women: white collar workers, construction workers, local residents, and truck drivers. A recent study of HIV risk behavior among long distance truck drivers in Lao PDR found that:

Most stay out overnight away from home (74.7% in past 3 months) and most cross the border into other countries (60.3%). They spend almost one third of each month away from home (9.4 days per month). This provided opportunities for commercial sex, which was quite common (40.7% in past year...) and a significant proportion paid for sex quite frequently (22.3% had 3 or more partners in the past year...). The prevalence of symptoms [for sexually transmitted diseases] in the past year in long distance truck drivers was 11%.<sup>15</sup>

72. Knowledge of HIV/AIDS among service girls in northern Laos is “conspicuously absent” and “condom use totally at the discretion of the customer.” The risk for the indigenous people along the project road may also be increased by virtue of traditional sexual practices that permit premarital experimentation.<sup>16</sup>

73. HIV/AIDS infection is spreading in China. Yunnan province is one of the epicenters of the epidemic because of its close proximity to Thailand and Burma. Southern Yunnan is an increasingly important source of entertainment workers for Thailand, where most women who end up in Bangkok are infected within the first six months of work, a reflection of their low levels of HIV awareness.<sup>17</sup>

74. The type of low-cost brothels that created the critical mass of HIV infection in Chiang Rai in the early 1990s are not yet found along the Northern Economic Corridor. In fact, the nature of the sex trade has radically changed in Chiang Rai itself. As noted, in 1992 Chiang Rai had 169 brothels employing 1,177 women. By 1997, there were only 30 brothels with 162 women. The stigma of HIV/AIDS associated with these low-price sex-only establishments cause a dramatic

<sup>13</sup> *Centers for Disease Control and Prevention Daily News Update*. 1997. Laos: Facing the AIDS Time Bomb. October 31.

<sup>14</sup> United Nations Development Programme. *South East Asia HIV and Development Project*. March 2000.

<sup>15</sup> National Committee for the Control of AIDS Bureau and Ministry of Health. *HIV Surveillance Survey—Sexually Transmitted Infection Periodic Prevalence Survey*. 2001.

<sup>16</sup> United Nations Development Programme. *South East Asia HIV and Development Project*. March 2000.

<sup>17</sup> Nathan Associates. 1999. *Yunnan Road Environmental and Social Analysis*.

increase in the number of bars, beer gardens, restaurants, karaoke bars, nightclubs, go-go bars, and massage halls, all of which have women available for hire. The 100% condom program nevertheless continues to promote education and empowerment in these new settings. But Centers for Disease Control and Prevention has noted with concern that:

Sex work has become more clandestine in Chiang Rai, involving more non-Thai women, including indigenous ethnic minorities and immigrants from neighboring countries. Because of their illegal status and language barriers, such women may be less able to protect themselves from HIV infection.<sup>18</sup>

75. The implications for the Northern Economic Corridor are serious. The following are the four key programmatic elements that characterized the successful interventions in Chiang Rai, only the first–information campaigns–are underway:

- (i) The Bokeo Red Cross chapter conducts school-based training programs in HIV/AIDS awareness. The Bokeo provincial radio station broadcasts HIV/AIDS messages twice weekly on 102.75 FM. CARE and the Lao Women’s Union also promote HIV education. The Red Cross chapter in Louang Namtha conducts peer group training in HIV awareness and condom use in villages along the project road at a rate of two 2-day courses per month per district. Training has not been held, however, in the growing number of establishments with service women in Namtha municipality.
- (ii) There is no public budget for condoms and no distribution of condoms.
- (iii) Public sexually transmitted diseases (STD) treatment clinics are subsumed under the general outpatient department at Bokeo and Louang Namtha provincial hospitals, neither of which offers adequate services.
- (iv) There are no programs designed to empower service women to demand condom use.

76. Fortunately, Lao PDR need not suffer through the devastating experience of Thailand in the 1990s but may instead move immediately to forestall the emergence of a Thai-style epidemic. Lao PDR policy makers and program administrators should take advantage of the Thai experience and should implement the four key program elements described above without delay.

#### **b. Mitigation Measures**

77. An HIV/AIDS/STD and Trafficking education and awareness program will be implemented by the Project. A description of the program to be implemented is presented in Section VII. B: Development Activities (para. 106).

### **5. Increase in Unwanted Pregnancies**

78. Anecdotal evidence from public health officials suggests that the rate of family formation is increasing along the road corridor. This is not surprising, given the prevalence of late marriages and lower than average birth rates found in the 1995 census for Bokeo and Louang Namtha provinces. At the same time, the increase in public awareness and acceptance of family planning among the population has not been responded to adequately by public service

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<sup>18</sup> *Centers for Disease Control and Prevention Daily News Update*. 1997. Laos: Facing the AIDS Time Bomb. October 31.

programs. High population growth among indigenous swidden farmers is cited as an additional stress on land reserves.

79. Avoiding an unwanted pregnancy is one of the single most powerful preventive health measure available. The idea that women do not have to be pregnant is now well known along the project road. But they still have to buy pills or injections rarely available in the village.

80. The SAP will include birth spacing and birth control education services to mitigate the likelihood of increased rates of unwanted pregnancies associated with improvements in health and economic status

## **VI. MIGRATION TO PROJECT ROAD**

81. The provincial governments of Louang Namtha and Bokeo have expressed concern over the inevitable in-migration that has already begun along route 3 and requested assistance to protect the needs and rights of the existing communities. Outsiders are requesting permission to settle from the village people who, in turn, agree without having any idea of the carrying capacity of their village territory. While this may not be a problem when there are only a few in-migrants, the road improvements will inevitably bring in more who recognize the economic potential. It is important that villages know the carrying capacity of their resources and how to protect their land use rights and their resources.

### **A. Land Zonation, Allocation, and Titling in the Project Area**

82. As a complement to the Project, a project financed by the JFPR will pilot a program for map-based land zonation, allocation, and titling that could subsequently be applied along the length of route 3. The JFPR project will be carried out in eight of the project villages. Upscaling of the pilot program to all of the other villages along route 3 would consist of the following basic steps: (i) Interpretation of existing air photographs for a 20-kilometer wide strip along the road, (ii) Preparation of a slope map and present land use map indicating village territory and national biodiversity conservation area boundaries (to be prepared by trained provincial government staff and villagers), (iii) Marking out on the ground the village boundaries, and (iv) Issuing land use certificates for land already under sustainable use. The process up to this stage can help communities to identify their present land availability, carrying capacity and needs, and awareness of how much, if any, land they can afford to share with outsiders.

83. The Project will address the constraints to land registration in women's names by ensuring that women participate equally in the land allocation and titling process, that land titles are issued in the names of both husband and wife, and that women fully understand their rights.

84. The Project will facilitate land titling for villages along the road through coordination with the Department of National Land Use Planning and Development. The Project will implement a map-based land zonation, allocation and titling program along the road using the methodology that will be developed under the JFPR project, and using provincial and district level teams that will be trained under the JFPR project.

## **VII. DEVELOPMENT PLAN**

### **A. Objectives**

85. The overall goal of the SAP for ethnic groups is to reduce poverty. The strategic framework to achieve this goal is defined by the ADB's thematic priorities for development assistance to Lao PDR. The four principal pillars of this framework are designed to support improvements in:

- (i) rural development and market linkages,
- (ii) human resource development,
- (iii) sustainable environmental management, and
- (iv) private sector development and regional integration.

86. Within the context of these priority objectives, the purpose of the SAP is to enhance the beneficial aspects of the project road improvement project and to mitigate the adverse impacts in keeping with the goal of poverty reduction in the Northern Economic Corridor.

### **B. Development Activities**

87. The strategy for the SAP is to develop a strong social and economic base upon which communities, government entities, and development assistance programs can build. The focus will be on the communities in greatest need of coping skills to respond to the opportunities presented by an all-weather project road.

88. The detailed design of the SAP will be made following a participatory approach during project implementation, whereby community mobilizers will facilitate community identification of needs and appropriate design of SAP activities.

89. The SAP will address the needs of the ethnic minority women by specifically targeting ethnic minority women in the nonformal education and micro-finance/small business skills program, the water supply and sanitation schemes, and the HIV/AIDS/STD and Trafficking education and awareness program.

90. The precise nature of the development and mitigation activities to be undertaken will only be known after a period of participatory planning among the affected communities.

91. The objective of the following activities are to establish a solid base on which other social development interventions can be built, including possibly a loan to continue on from the proposed JFPR project identified below.

#### **1. Village Planning**

92. During resettlement plan implementation, community mobilizers, together with resettlement committees, will assist project villages affected by land acquisition to replace lost land by clearing and leveling new paddy land, dwelling sites, and livestock pens and constructing fish ponds. All villages along the road will be assisted to fence their livestock pens and vegetable gardens and to fence along the road to protect children and livestock from running out onto the road.

## 2. Water Supply and Sanitation Schemes

93. The Project will support the Lao PDR's Strategy for the National Water Supply and Environmental Health Program, lead by the National Centre for Environmental Health and Water Supply (Nam Saat). The long-term goal of the strategy is that every rural person of the Lao PDR has access to safe and adequate water supply and sanitation facilities and lives in a hygienic environment.

94. The World Bank Water and Sanitation Program has been supporting this program in Louang Namtha province since 1994. Their direct project support will come to an end in December 2002, however, their program support to Nam Saat will continue. The project has built considerable capacity within Nam Saat and Louang Namtha provincial and district governments for rural water supply, sanitation and hygiene. Nam Saat is seeking funding to continue their project work of providing water supply and sanitation to the people of Louang Namtha province. Nam Saat Bokeo Province is receiving funding and technical assistance from Sida to carry out their program in Bokeo.

95. The Project will provide support to Nam Saat Central and the provinces of Louang Namtha and Bokeo to continue to provide access to safe and adequate water supply and sanitation facilities and the necessary awareness. Nam Saat, together with the Department of Health of which it is a part, will be the implementing agency for the Project. The Department of Health will have full responsibility for implementing the component. Division of Communication, Transport, Post and Construction will have the responsibility for overall coordination, including disbursement of funds, and will assign a strong leader with good knowledge of the program. Nam Saat Louang Namtha will recruit a local consultant to provide technical assistance for the first 12 months. Bokeo has an international expert provided by the Swedish International Development Cooperation Agency, who will provide the necessary technical assistance for this Project.

96. Provincial and district coordination teams already exist at the provincial and district levels and consist of the Department of Education, the Lao Women's Union and Youth Union, Urban Water supply Department, Rural Development Committee, and Nam Saat. Division of Communication, Transport, Post and Construction will disburse funds on a quarterly basis to Nam Saat, based on a Nam Saat and ADB-approved annual work plan.

97. The World Bank's Water and Sanitation Program will continue to provide backup support throughout the duration of the Project. Supervision will be from ADB.

98. Nam Saat will prepare a detailed proposal for this component including a project implementation plan. The proposal will include an assessment of potential for developing a water supply system in Viangphoukha district town, possibly following a multi-village approach, with technical assistance from Nam Papa.<sup>19</sup> Nam Saat Louang Namtha will take the lead in preparation of the proposal together with Nam Saat Bokeo, and with guidance from Nam Saat Central and Sida. The World Bank's Water Sanitation Program will finance the costs of the proposal preparation. The proposal will be prepared based on a needs assessment and demand assessment for the villages along the project road that do not yet have operational water supply and sanitation schemes. The proposal will follow Nam Saat's 7-step approach to rural water supply and sanitation, namely:

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<sup>19</sup> State enterprise for urban water supply and wastewater which also refers to a piped water system with household connections.

#### Provincial and District Level

##### Step 1: Primary Data Collection and Evaluation

- Collecting background information
- Learning from past experiences through review
- Assess human resources potential at district and provincial levels

##### Step 2: Consultation and Review about Methods of Implementation

##### Step 3: Develop the Annual Plan from the Project Implementation Plan

- Develop annual plan with district and provincial involvement

##### Step 4: Implementation of District and Provincial Capacity Building Plans

- Follow plans set up in project implementation plan (through annual work plan)

#### Village Level

##### Step 5: Develop Rural Water Supply and Sanitation Village Action Plan

- Hygiene awareness
- Community dialogue
- Technical survey
- Set up water and sanitation committee
- Procurement plan
- Operations and maintenance plan
- Training plan (for villagers)
- Signing and agreement of scheme

##### Step 6: Implementation of Village RWSS Action Plan, and Construction

- Implementation of village action plan
- Construction of scheme

##### Step 7: Monitoring, Evaluation, and Learning

- Set up monitoring and evaluation system

99. The selection of villages to benefit from water and sanitation schemes will be based on the following criteria: (i) the villages and appropriate technical options will be selected using a community-based participatory approach; (ii) arrangements will be in place for community-based operation and maintenance; (iii) construction of the schemes will avoid displacing or adversely affecting villages or individual homesteads/agricultural production areas, and if displacement is essential, appropriate compensation measures will be applied in accordance with ADB's *Policy on Involuntary Resettlement* and consistent with the resettlement plan prepared for the Project; and (iv) construction of the schemes will avoid environmental degradation.

### **3. Education and Awareness Program**

100. The JFPR Project will pilot a program and curriculum for social preparation of villages along the road to be able to benefit from and cope with the changes and opportunities that the

road will bring. The pilot will include nonformal education including primary health education, skills in micro-finance, small business development, product processing, and marketing. The JFPR will also pilot a land zonation allocation and tilling program. This pilot program can subsequently be implemented along the road under the SAP. The detailed design of this subcomponent will be done through a participatory process during project implementation.

#### **a. Nonformal Education**

101. Nonformal education for both adolescents (with special emphasis on girls) and adults who have not had access to formal education opens up the possibility for them to engage in development activities and enterprise opportunities to a much greater degree and with increased confidence than otherwise. Basic literacy, numeracy, and Lao language fluency training built around a curriculum which includes the key health, business, micro-enterprise, and marketing messages is a powerful method for reinforcing and strengthening the development process. The component will work with the provincial and district nonformal education departments and other donors to support basic literacy, numeracy, and fluency training (for 3 years, thereafter supported by a user pays system) basic literacy, numeracy, and fluency training which will include:

- (i) Training of nonformal educators who will be resident in the village (they will provide their services on a user pays system after 3 years)
- (ii) Provide basic educational materials/equipment
- (iii) Training in literacy and numeracy
- (iv) Provide or improve basic infrastructure

#### **b. Primary Health Education**

102. Primary health education will include the following:

- (i) Training of village health workers who are village residents.
- (ii) Birth-spacing and birth control education services to mitigate the likelihood of increased rates of unwanted pregnancies associated with improvements in health and economic status.
- (iii) Training of village birth attendants.
- (iv) Mother and child health care, including training on nutrition and vaccinations.

#### **c. Micro-Finance/Enterprise, Product Processing, and Marketing**

103. The Project will cover training in basic business skills, savings and credit systems, bookkeeping skills, and income generation activities, particularly for women.

#### **d. Land Zonation, Allocation, and Titling in the Project Area.**

104. As a complement to the Project, a project financed by the Japan Fund for Poverty Reduction will pilot a program for map-based land zonation, allocation, and titling that could subsequently be applied along the length of route 3 under the social action plan component of this Project. The JFPR project will be carried out in eight of the project villages. Upscaling of the pilot program to all of the other villages along route 3 would consist of the following basic steps: (a) interpretation of existing air photographs for a 20-kilometer wide strip along the road, (b) preparation of a slope map and present land use map indicating village territory and national biodiversity conservation area boundaries (to be prepared by trained provincial government staff

and villagers), (c) marking out on the ground the village boundaries, and (d) issuing land use certificates for land already under sustainable use. The process up to this stage can help communities to identify their present land availability, carrying capacity and needs, and awareness of how much, if any, land they can afford to share with outsiders. They will also be given information about land use rights, protecting their land, resources, and use rights. The cost of applying this program along the road will be less than \$100,000 and is included in the budget for basic needs development.

**e. Road Safety Program**

105. This subcomponent will consist of the development and delivery of a road safety awareness and education program activities such as:

- (i) enforcement of construction safety standards during construction period,
- (ii) installation of appropriate signs warning drivers to slow down in settled areas,
- (iii) establishment and enforcement of speed limits,
- (iv) road safety education for rural children, and
- (v) construction of roadside fences as necessary to discourage livestock and small children from stepping into the roadway, as is done already in some roadside villages in Bokeo province.

**f. HIV/AIDS/STD**

106. The program will be designed and implemented by an international nongovernment organization through the National Committee for Control of AIDS and the Provincial Committees for the Control of Aids. The program will generally follow the methodology established by the STD and HIV/AIDS Reduction Project, which CARE International has been implementing in Bokeo Province since 1991 and in accordance with Provincial Committees for the Control of Aids' strategic plans, and will also involve the Lao Women's Union. The program will include:

- (i) baseline survey on STD/HIV/AIDS and village populations to check the movement of people later on;
- (ii) the formation of village monitoring groups;
- (iii) preventive education and awareness through peer education and training of trainers (beginning with the formation of core groups of village head, leaders of women's and youth groups);
- (iv) behavior, communication, and change awareness, including preparation of information, education and communication materials;
- (v) STD Services/health clinics on construction sites, including condom promotion and distribution, drugs for treatment, revolving drug funds; and
- (vi) the timing will be for approximately a 2-year program tentatively targeting communities, border crossings, truck companies, and bars and teashops etc. before contractors are mobilized; targeting construction workers and truck drivers during construction; and design a program for targeting of truck drivers and border crossings after project completion.

**g. Pilot Project for Community Development in the Nam Ha Watershed**

107. A proposed JFPR Project would be undertaken as a pilot in nine villages in the Nam Ha Watershed (7 villages in Viangphoukha district and 2 villages in Namtha district of Louang Namtha province). From the perspective of the Government, the major issues facing the

population and target area are secure livelihood and increased economic capacity for communities, while conserving and protecting the national biodiversity conservation area watershed and remaining forest. Therefore, the JFPR project concept has been developed to assist these communities continue the development of sustainable and permanent land-use systems of agriculture and forestry that will enable them to avoid an ever-increasing scale of swidden agricultural production with associated negative environmental and economic impact. The project aims to maximize the stability and productivity of agriculture while developing an agro-forestry component that will ensure longer-term income and food security and actually increase the level of forest cover for watershed protection, wild life habitat and local and national income. The main project activities would be:

- (i) A participatory analysis of the land capability, consultative logical land-use planning with communities, district and provincial government personnel, and the cooperative development of secure land-use rights/land title for farming families. In parallel with this;
- (ii) a development of alternative livelihood substitutes (smallscale irrigation, rain-fed upland arable land terracing and land stabilization, fruit orchards, non-timber forest products domestication, livestock systems, fire wood, and community forest plantation); and
- (iii) a combination with a component to link the increased productivity with the marketing potential of the road.

### **VIII. IMPLEMENTATION STRATEGY**

108. Mechanisms will be devised and maintained for participation by the ethnic minority people in decision making throughout project planning, implementation, and evaluation. The process of stakeholder consultation at every stage of program planning and implementation and evaluation will be emphasized.

### **IX. INSTITUTIONAL ARRANGEMENTS**

109. Within the central Government, the lead coordinating agency for ethnic minority issues is the Lao Front for National Construction. Lao Front for National Construction's Department of Ethnic and Social Affairs helps the Government develop and implement policies toward ethnic minorities and the mountainous regions. The national Central Leading Committee for Rural Development and provincial rural development committees and rural development offices have traditionally overseen rural development. These offices, however, have now been folded into the provincial and district departments of agriculture to more accurately reflect the key roles of agriculture, irrigation, and animal husbandry in rural development programs.

110. The SAP will be divided into its subcomponents for design and implementation. Design and implementation of the HIV/AIDS/STD and Trafficking education and awareness program will be put out to international competitive bidding by international agencies based in Lao. The water supply and sanitation schemes component will be the responsibility of Nam Saat under the Ministry of Public Health. The nonformal education and road safety program will be under the direct responsibility of the project coordination consultant who will request proposals from international and domestic agencies for design and implementation. Design and implementation of all subcomponents of the SAP will be undertaken in coordination with, and with the full participation of, all relevant agencies and community stakeholders. The Social and Environment Division of Department of Roads will receive on-the-job training in the design, implementation, and monitoring of such social development activities.

## X. BUDGET AND FINANCING

111. An amount of \$2.1 million has been estimated for the cost of the social action plan. The breakdown is as follows:

**Table 4: Cost Estimates for Social Action Plan**

Component	Cost Estimate (\$)
Education and Awareness Program	
Nonformal Education	450,000
Road Safety Program	200,000
HIV/AIDS/STD and Trafficking	250,000
Water Supply and Sanitation Schemes	1,200,000
<b>Total</b>	<b>2,100,000</b>

HIV/AIDS/STD = human immunodeficiency virus/acquired immuno deficiency syndrome.

Source: Asian Development Bank estimates.

## XI. SUPERVISION, MONITORING, AND EVALUATION

112. Detailed design of the administrative and management structure of the SAP will be carried out during the early phases of program planning. Overall oversight will be one of the principal responsibilities of the project coordination consultants. An independent monitoring organization will be hired by the Ministry of Communication, Transport, Post and Construction to monitor implementation of the various components of the SAP and its overall impact. Sub-components will have their own participatory monitoring functions.

## XII. IMPLEMENTATION SCHEDULE

113. Due to the necessity to have the HIV/AIDS/STD and Trafficking education and awareness program component in place, before the contractors are mobilized, recruitment of that consultant will begin immediately.

114. Nam Saat has been requested to prepare their proposal immediately for the water supply and sanitation schemes.

115. Requests for proposals for the nonformal education and road safety program will be made after the project coordination consultants have been mobilized.

116. The village planning activities will be undertaken during resettlement plan implementation.