

II. PRIMARY EDUCATION EXPANSION AND IMPROVEMENT PROGRAM

CHAPTER II

PRIMARY EDUCATION EXPANSION AND IMPROVEMENT PROGRAM

II-1 Current Situation and Issues

Under the current Lao education system, compulsory primary education starts from the age of 6 and it lasts for 5 years. In 1996, Lao PDR issued the "Education Development Plan 1996-2000" as a guideline for national education. Further, the Government has set a goal of universal primary education by 2015.

The enrollment ratio for primary education in Savannakhet and Khammouan, however, still remains significantly low, i.e., 55.4% and 50.9% respectively¹. This is attributed to the facts that (i) accessibility to primary school is poor, (ii) there are many incomplete schools, (iii) awareness of educational value is low in some areas, and (iv) teachers are insufficiently available.

Table II-1 Primary Schools in SKR

	1994-95	1995-96	1996-97	1997-98
Savannakhet				
No. of Schools	1,067	1,093	1,133	1,133
No. of Teachers	3,861	3,871	3,924	3,924
No. of Pupils	105,949	107,505	109,394	109,394
Khammouan				
No. of Schools	450	456	492	520
No. of Teachers	1,204	1,339	1,434	1,509
No. of Pupils	40,675	41,158	45,030	47,494

Source: IRAP, 1998

1) Low Accessibility to Primary School

There is quite a large number of villages without primary schools, i.e., 476 villages (or 31% of the total) in Savannakhet and 276 villages (or 35%) in Khammouan. Children living in these villages have to travel to other villages for schooling. In fact, it is rather difficult for young children especially aged 6 to 7 to travel long

¹ These numbers indicate net enrollment ratios in 1995, as the recent data of enrollment ratio are unavailable.

distance to other villages. It often happens that they miss the opportunity to receive primary education. The government has been trying to provide primary schools for these villages, but such an effort is limited as there are too many villages without schools in the provinces.

Table II-2 Villages with/without Primary Schools (1998)

		Villages		Villages without School		Villages with Incomplete School		Villages with Complete School	
Savannakhet	Urban	94	100.0%	27	29.0%	24	25.0%	43	46.0%
	Lowland	317	100.0%	71	22.4%	138	43.7%	108	33.9%
	Central	672	100.0%	123	18.3%	376	55.9%	173	25.8%
	Eastern	453	100.0%	55	56.4%	168	37.1%	29	6.5%
	Total	1,536	100.0%	476	31.0%	706	46.0%	354	23.0%
Khammouan	Urban	139	100.0%	47	33.8%	51	36.7%	41	29.5%
	Lowland	238	100.0%	71	29.8%	100	42.0%	67	28.2%
	Central	277	100.0%	87	31.4%	127	45.8%	63	22.7%
	Eastern	146	100.0%	71	48.6%	56	38.4%	19	13.0%
	Total	800	100.0%	276	34.5%	334	41.8%	190	23.8%
Total	Urban	233	100.0%	74	31.9%	75	32.0%	84	36.2%
	Lowland	555	100.0%	142	25.6%	238	43.0%	175	31.5%
	Central	949	100.0%	210	22.1%	503	53.0%	236	24.9%
	Eastern	599	100.0%	326	54.5%	224	37.4%	48	8.1%
	Total	2,336	100.0%	752	32.2%	1,040	44.5%	544	23.3%

Source: IRAP, 1998

Key Point

According to the local officers and people, it is important for villages without schools to have a small school offering even 2- to 3-year education. This is because children aged 6 cannot travel to other villages everyday and this reduces enrollment in primary education. When children become 3rd to 4th graders, they can travel to other villages to continue studying. A solution is to have satellite schools for such remote villages. This Program takes 3 kilometers as a maximum distance for school access for primary education .

2) Significant Number of Incomplete Schools

There are many villages with incomplete schools that cannot offer 5-year primary education. In SKR, 1,040 villages (or 45% of the total) are classified in this category. Savannakhet has 706 (or 46%) incomplete schools and Khammouan has 334 (or 42%) incomplete schools. The main reasons are a shortage of teachers and classrooms. The budgetary constraints of the government prevent training enough teachers and providing sufficient classrooms. According to the Asian Development Bank (ADB), most incomplete schools offer 2-year primary education.

Primary Education Expansion

Children living in the villages with incomplete schools have to travel to other village to continue studying. However, it often takes more than one hour except a few villages located near towns and along the main roads. Therefore, many children tend to give up studying.

Key Point

To solve this situation, it is important to improve such incomplete schools to the standard of 5 year education, especially in those villages where access to villages with complete schools is difficult.

3) Low Awareness of Educational Value

People's awareness of the value of education has much improved in recent years, with a consequence that the number of students in primary school has increased. Many parents living in the urban areas are eager to send their children to school, and their willingness to encourage secondary and tertiary education becomes stronger and stronger. On the other hand, there still remains many villages where people do not recognize the value of education. Most of these villages are located in the eastern region, such as Sepon, Phine, Nong, and Vilabuly in Savannakhet, and Boulapa and Nakay in Khammouan. In these districts, ethnic minorities account for more than half the population. They speak different languages and maintain different cultural values. These ethnic minorities consider that children are an important family work force. Many school-aged children take care of their brothers and sisters during daytime. Therefore, even if there exists a primary school in such villages, many children do not go to school.

Key Point

It is vital to raise the economic conditions of such ethnic minority villages. In addition, it is important to give them strong incentives to let their children go to school. For example, it is proposed that study materials and school feeding are provided to students in such villages. At the same time, broad educational campaigns should be expanded to raise the educational awareness of such people

4) Shortage of Teachers

With a rapid increase in enrollment in primary schools, a shortage in teachers has become a serious problem in SKR. In Savannakhet, 3,924 primary school teachers are teaching 109,394 students (1998). The number of students per teacher is 28. In Khammouan, 1,509 teachers teach 47,494 students, with 31 students per teacher. Savannakhet can meet the overall requirement for

teachers, but shortages occur in Outhoumphone, Atsaphangthong, Phine and Xonnabuly districts where the teacher-student ratios are more than 30.

This is attributable to several factors; i.e., poor incentives for teachers and low capacity at the Teacher's Training College. Most students completing secondary education are not interested in teaching, because of the low wage level and a high possibility of being posted to the remote rural area. Although arrears in teacher's wages are not observed in Savannakhet, it often happens in Khammouan. Sanitary/health conditions in the rural areas are other problems.

There are eight Teacher's Training Colleges (TTC) and Teacher's Training Schools (TTS) in Lao PDR². The Savannakhet TTC is the center for teacher training in SKR. The Savannakhet TTC currently accommodates 332 students for primary school teacher. Most students enter TTC under the government quota system (i.e., a certain fixed number of students are hired from each district). Such a quota, however, cannot meet the required demand. Despite the unpopularity of being a teacher, there still remains more students willing to become teachers than the current teaching capacity at the Savannakhet TTC.

Key Point

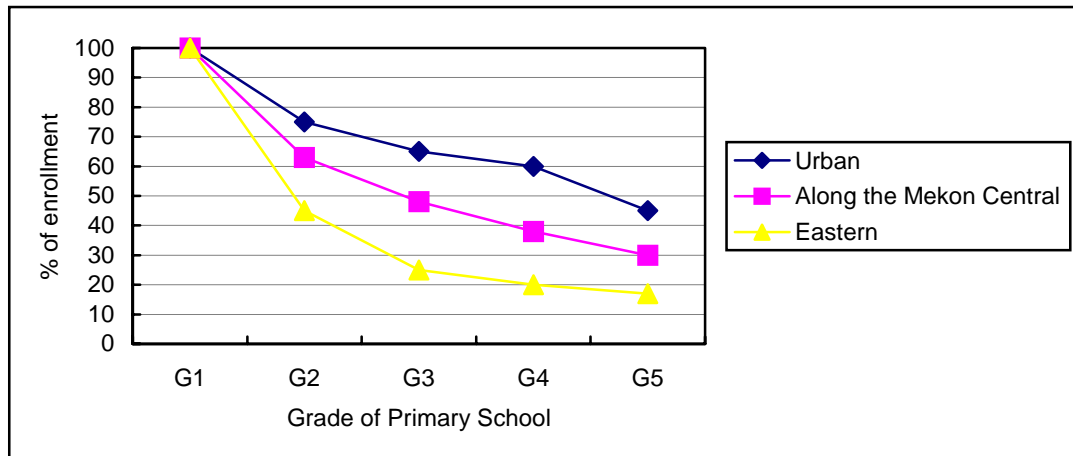
It is necessary to quickly expand the capacity of the Savannakhet TTC, and to make incentives stronger through improved services for teachers in the long-run. In some cases, villages are obliged to individually hire personnel who have completed lower secondary education, called "volunteer teachers," in order to supplement a shortage of teachers. Such volunteer teachers are a provisional measure, and they should be replaced by trained teachers in the long-run.

5) Regional Disparity of Enrollment at Primary Education

A large disparity is found in school distribution by zone; i.e., urban zone, the lowland (Mekong) zone, central zone, and eastern zone. The central and eastern zones show a lower enrollment rate and a higher dropout ratio than the other zones. This is deeply related to geographical location and ethnicity. In the central and eastern zones, many villages have no well-maintained access roads. Villagers in such zones are mainly "Lao Theung" having a different language and a different culture.

² There are Dong Khamxang TTS, Luangnamtha TTS, Salavan TTS, Khangkhai TTS, Ban Keun TTC, Luangphrabang TTC, Savannakhet TTC, and Pakse TTC. Besides these, there are Physical Education School, Art Education School and NUOL.

Primary Education Expansion



Source: IRAP, 1998

Figure II-1 Enrolled Students by Years of Teaching

Key Point

To overcome such a disparity by zone, more attention should be paid to the neglected areas. In such areas, it is necessary to provide additional facilities, e.g., provision of school feeding and incentives for teachers.

II-2 Objectives of the Proposed Program

This Program has five major objectives. First and the most basic objective is to expand primary education in SKR. There still exist many children who cannot access any primary school. To accommodate such children and give them opportunities to study, this Program will improve access to primary schools and raise enrollments.

Secondly, this Program goes into the issue of the sustainable operation of schools. Under the current government budgetary constraint, schools can hardly expect support for teaching materials and other operational expenses. This Program, therefore, intends to undertake income-generating activities at schools/villages. The income-generating activities can help schools procure teaching materials and equipment.

Thirdly, the income-generating activities help pupils understand a fundamental principle of entrepreneurship through their participation in such activities on the school compound and by marketing their products. Since a lack of

entrepreneurship is a common constraint in every sector, understanding the basic concept of entrepreneurship at their age is considered essential.

Fourthly, this Program touches upon community development. A primary school will be designed to serve as a community center for villagers. This makes village community relations closer and stronger. A village can be developed and changed into a more active community through mutual cooperation among villagers around the schools.

Lastly, this Program intends to increase the number of primary school teachers in order to allocate an adequate number to each school. It aims at overcoming the current shortage of teachers in SKR.

II-3 Program Components

This Program consists of four components; (i) primary school building construction, (ii) income-generating activities, (iii) community center facilities, and (iv) support to the Savannakhet Teacher’s Training Colleges (TTC).

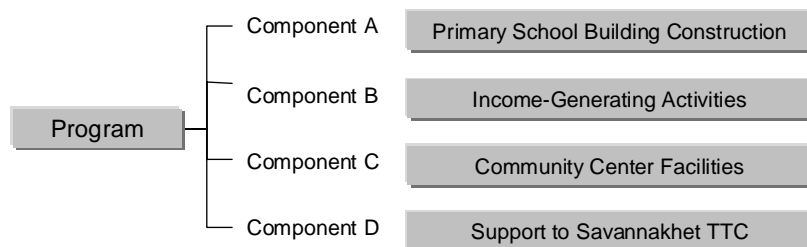


Figure II-2 Four Components of Proposed Program

II-3.1 Component A: A Primary School Building Construction

1) Program Outline

There are 1,653 primary schools in SKR; i.e., 1,133 in Savannakhet and 520 in Khammouan. In view of a soaring number of enrolled primary education students, it is estimated that additional 150 primary schools are required in Savannakhet and 70 in Khammouan by 2010.

Primary Education Expansion

Table II-3 Estimated Primary School Shortage

	2010	2015	2020
Savannakhet	150	360	580
Khammouan	70	140	220
Total	220	500	800

Source: JICA Study Team

This component sets a target to construct 100 primary schools in core villages (50 each in Savannakhet and Khammouan) at the initial stage and then expands them at a latter stage to other villages reflecting the monitoring and evaluation results during the initial stage.

This component proposes a renovate scheme or a cluster approach for primary school construction. A cluster is composed of a core village with a moderate size of population to function as a center, and a few satellite villages around it. Most core villages already have primary schools but school buildings are in poor conditions and overcrowded. Provincial and district offices put a highest priority on such primary schools for improvement and renovation. In additions, it is important to incorporate satellite villages nearby, having no primary schools. Such satellite villages generally have less than 50 children between age 6 and 10. It is not necessary for such satellite villages to have a 5-classroom school building. It is important that such children can initially receive primary education in their village, and after completing 2 to 3-year primary education, they can travel to other villages to continue studying. This provision will effectively raise enrollment in the dispersed rural villages.

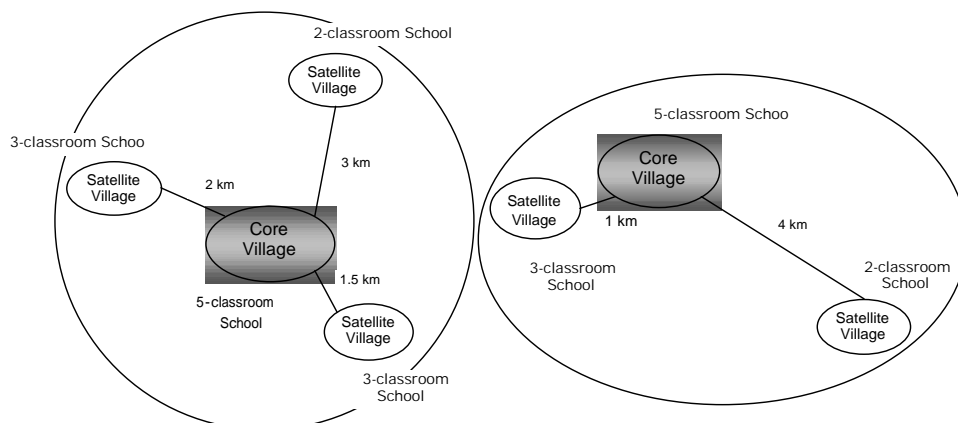


Figure II-3 Cluster Scheme for Primary School Construction

2) School Mapping / Selection of Location

There are many different types of villages in SKR. Four factors have been considered when selecting the location for new primary schools; (i) existing primary schools, (ii) condition of school buildings, (iii) population size and number of school-aged children, and (iv) ethnicity composition and educational awareness. In the eastern districts, factor (iv) has been specifically taken into account.

In general, this Program envisages a minimum of 50 school-aged children (6 to 10 years old) and a population of 500 per village as the base line for 5-classroom school provision. However, the number of children coming from adjacent villages should be taken into account. Therefore, the selected villages in this Program may not necessarily meet this general rule of 5-classroom school provision.

Table II-4 Priority Rating of Village Selection

		Population Size			
		Large		Small	
		School	No School	School	No School
Condition	Bad	3	1	5	2
	Poor	4		6	
	Good	not considered		not considered	

*The numbers in the table indicated prioritized number.

Source: JICA Study Team

50 core villages in each province have been selected as listed in Attachment I. Some core villages have 1 to 4 satellite villages. Among these satellite villages, the Program focuses on villages without schools or with less than one-year education. Such satellite villages will be provided with 2 or 3-classroom buildings (the villages of provision less than 200 in population will be provided with a 2-classroom building and the villages of more than 200 in population with a 3-classroom building). The number of satellite villages is listed in Attachment II and summarized as follows;

Table II-5 Number of Satellite Schools to be Provided in SKR

Province	No. of Satellite Villages	with 3-classroom buildings	with 2-classroom buildings
Savannakhet	36	25	11
Khammouan	61	48	13
Total	97	73	24

Source: JICA Study Team

Primary Education Expansion

Location of the selected core villages and satellite villages are shown in Attachment III.

3) Facilities

In core villages, a 5-classroom school building is required. It should include the following facilities;

- 5 classrooms,
- 1 teacher's room (with enough space for a community center), and
- Toilets for boys and girls

In addition, the following equipment will be provided;

- 100 sets of desk and chair for pupil (20 sets for each classroom)
- 10 sets of desk and chair for teacher (one set for each classroom and 5 sets for the teacher's room)
- 6 blackboards (one for each classroom) –one for teacher's room

In satellite villages, a 2 or 3-classroom school building is required. It should include the following facilities;

- 2 or 3 classrooms
- 1 teacher's room (also being used as a community center)
- Toilets for boys and girls

In addition, the following equipment will be provided;

- 40/60 sets of desk and chair for pupil (20 sets for each classroom)
- 4/6 sets of desk and chair for teacher (one set for each classroom and 2/3 sets for teacher's room)
- 3/4 blackboards (one for each classroom)+ 1 for the teacher's room

Layouts of school building (3 types) are presented in Attachment IV.

4) Operational Plan

(a) Construction Method

Local contractors have adequate experience and are capable of constructing the proposed type of primary schools. They may be encouraged to form a consortium in constructing a number of schools in a limited period. The local contractors

may be supervised by a management contractor if and when the donor agency requires such construction management.

(b) Adoption of Participatory Method

It is important to promote participation of villagers in school construction. Ownership of a school can be strengthened through such villagers' participation. It is planned that village-labor is provided and some school equipment is supplied by villagers under the proposed program.

(c) Monitoring and Evaluation

After the establishment of new primary schools in several core villages and satellite villages, it is necessary to monitor the change in children's enrollment ratio, dropout ratio, motivation for study and awareness the value of education in these villages. Monitoring and evaluation will be conducted by a supervisory consultant with the cooperation of a village community.

II-3.2 Component B: Income-Generating Activities

1) Program Outline

The substantial financial support for school operation and maintenance can hardly be expected from the central government due to the current budgetary constraints. Primary schools, therefore, may generate some income by themselves. For example, cattle, pig, and chicken raising, fruit tree planting, and fish culture in the school compound may be income-generating activities for primary schools. Each school/village can choose one to three activities based on their geographical and natural conditions. These activities are managed by the village community under the community leader's supervision. The income from these activities can be used to buy studying and teaching materials for school maintenance, and to hire voluntary teachers. It can also be used for school feeding.

Through these activities, villagers and pupils can learn how to manage and control such activities, how to market their products, and how to earn profits. Understanding these issues might develop an entrepreneurial mind among them.

Primary Education Expansion

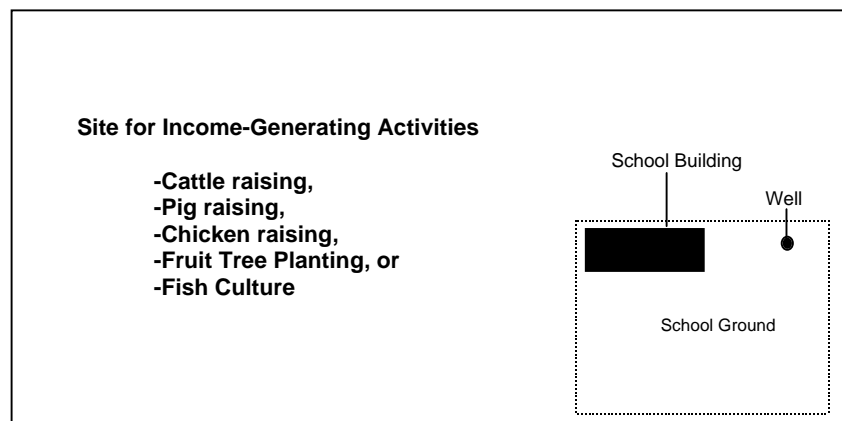


Figure II-4 Proposed School Income-Generating Activities

The initial facilities and equipment needed for the income-generating activities will be procured in combination with the construction of school buildings.

2) Facilities

Primary schools may conduct income-generating activities with the cooperation of the village community and the school teachers. Income-generating activities could consist of cattle, pig and chicken raising, fruit tree planting, and fish culture. The required facilities for the income-generating activities are listed as follows:

Table II-6 Required Facilities for Income-Generating Activities

	Income-generating activities	Size of Land to be needed	Facilities to be needed
I	Cattle raising	1.0~3.0 ha	grazing lot water trough cattle shed with a feeder fence with barbed wires
II	Pig raising	143 m ²	pig house play ground wooden fence
III	Chicken raising	120 m ²	chicken house net fence
IV	Fish culture	0.28 ha	pond paling fence or living fence
V	Fruit Tree Planting	n.a.	n.a.

Source: JICA Study Team

The outline of these activities are presented in Attachment V.

3) Operational Plan

(a) Selection of Income-Generating Activity

Village community will select one to three income-generating activities based on the geographical and meteorological factors in their village. Further, they will decide how to manage and take care of the activity through facilities and materials that can be initially provided. The site for these activities is best located next to the school compound, or nearby the school. These income-generating activities are implemented mainly in the selected core villages. The satellite villages do not necessarily conduct these activities, because of the small population and availability of land.

According to interviews at the selected villages in Savannakhet, income-generating activities of interest to villagers are summarized below. Fish culture and fruit tree planting are attractive activities for villagers. On the other hand, cattle raising is not popular among the selected villages in Savannakhet. Detailed information on interviews at villages is presented in Attachment VI.

Table II-7 Interested Income-Generating Activities in 50 Core Villages of Savannakhet

N=50	Cattle	Pig	Chicken	Fruit Tree	Fish Culture	Industrial Tree	Vegetable	Tree Nursery
No. of Villages	12	20	27	37	42	25	29	8
(%)	24.0	40.0	54.0	74.0	84.0	50.0	58.0	16.0

Source: JICA Study Team

Based on the result of interview survey at each village, the numbers of income-generating activities to be planned in Savannakhet and Khammouan are proposed below. Fruit trees will be planted in all schools.

Table II-8 Proposed Types of Income-Generating Activities by Province

	Cattle	Pig	Chicken	Fish Culture	Fruit Tree	Total
Savannakhet	11	12	9	18	50	100
Khammouan	12	12	13	13	50	100
Total	23	24	22	31	100	200

Source: JICA Study Team

(b) Organization of Villagers

Such an income-generating activity requires close cooperation of the village community. To implement it smoothly, the formation of village committee is

Primary Education Expansion

necessary. The village community should promote solidarity of villagers during the activities and be supported through technical cooperation by agriculture-related agencies in the province. The villager's organization should set some rules and measures for operation.

(c) Establishment of a School Fund

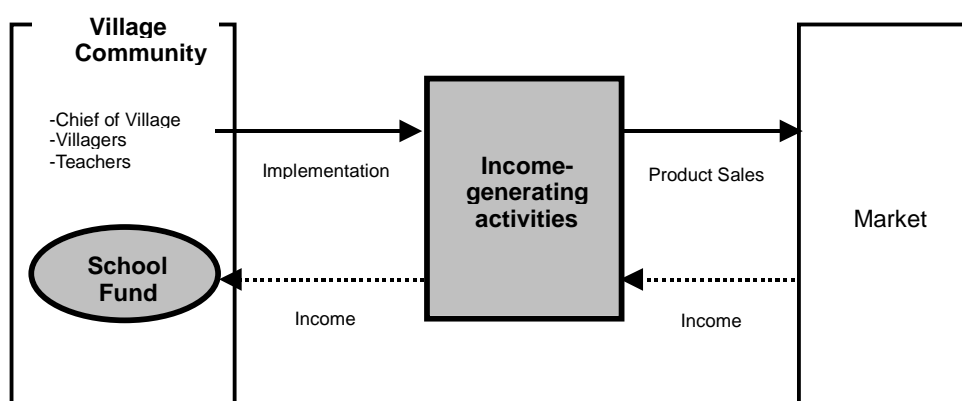
Under the jurisdiction of the village community, a school fund will be established. Revenues from their income-generating activity should be credited to the fund. The fund can be used mainly for education purpose, such as provision of teaching and studying materials and school feeding.

(d) Required Condition for Implementation

To successfully implement the proposed income-generating activities, a rule should be established that the income from these activities should not be credited to the national treasury, but used by and for each school.

(e) Monitoring and Evaluation

It is important to monitor how a village community works and how villagers cooperate with each other. In addition, a record should be maintained on annual income generation by source and how it is used. Monitoring and evaluation will be conducted by the provincial department of education with cooperation of the village community.



Source: JICA Study Team

Figure II-5 Flow of Income-Generating Activities

II-3.3 Component C: Community Center

1) Program Outline

Primary schools will be constructed not only for pupils but also for villagers. Primary schools have an additional function to serve as a community center with following activities:

- (a) Village meeting place,
- (b) "Community Learning Center",
 - e.g., Literacy education,
 - Vocational training, and
 - Seminar
- (c) Primarily medical treatment (with a "First Aid Kit")
- (d) Exhibition of village's traditional goods,
- (e) Child-daycare center,
- (f) School feeding program, and
- (g) Water well for village, where available.

The four activities ((a) to (d)) will be applicable to any villages. The activities of (e), (f) and (g) are key issues in the eastern zone, specifically Nong, Sepon, Phine, and Vilabuly districts in Savannakhet, and Nakay and Bualapha district in Khammouan. In these eastern districts, ethnic minorities have recently settle down and their awareness of the value of education is quite low. In addition, they usually have many children and an elder child takes care of the siblings. To raise primary education enrollment, it is important to provide strong incentives for going to school (e.g., school feeding program) and to reduce the burden of taking care of infants (e.g., child-daycare center function). The activity (g) requires dug-well in the school plot, though it cannot be applicable to all villages depending on availability of aquifers. It is effective to save children from water transport and to enhance health education at primary schools.

2) Facilities

The primary school building will serve as a community center. A part of the teacher's room or classrooms can be used for such purposes. Arrangement of a community center is dependent upon villagers' ideas and efforts.

3) Operational Plan

(a) "Community Learning Center" for non-formal education

Primary schools will function as a "Community Learning Center." Non-formal education can be conducted in the center, including a literacy class for adults and technical skill improvement seminar for villagers. In addition, the school can be equipped with newspapers and magazines for villagers to let them know of the situation outside their villages through effort of the provincial and district governments.

(b) Provision of a "First Aid Kit"

Most small villages in the remote areas have neither health care centers nor a pharmacy. In addition, such villages cannot easily access to other villages or pharmacies where health centers are located. Even minor injuries and mild cases of sickness may become serious because of no access to primary health care. A primary school will have a "First Aid Kit," including various medicines and equipment. Villagers can come to the school to take them anytime. After use, the user must replace the same kind of medicine or the cash equivalent. A village community should also operate and manage this "First Aid Kit."

(c) Exhibition of village's traditional goods

A community center will represent the village characteristics. Some traditional products in their village can be exhibited in the center. For example, traditional weaving and cloths, traditional agriculture equipment, and various carvings in their villages will be good items for decoration. Most rural villages in Thailand have reading centers or learning centers, with a similar concept to this community center, and such items are usually exhibited.

(d) Child-daycare Center

Children in the eastern districts are restrained from going to school, even if there is a school in their villages. This is because the elder children have to take care of their siblings. This tradition prevents children from studying. This program, therefore, proposes that a school should also function as a child-daycare center in such villages. Open space classroom can be used as a child-playing room. Pupils study basic skills such as reading, writing, and calculating in the classroom under the teacher's guidance, while taking care of their siblings.

(e) School Feeding Program

This program aims to increase the incentives and motivation for children to go to school in the eastern districts. The primary school provides pupils and their

siblings with nutritious food, milk and/or snacks for lunch. Such a school feeding program has been operated by the World Food Program (WFP) in various countries (e.g., Nepal, China, and Cambodia). The school feeding program was successful in raising the enrollment ratio at primary education and improving children's health conditions. WFP plans to start such a program in Lao PDR, targeting in the northern region of the country at the initial stage. The school feeding program in SKR could be implemented in cooperation with WFP.

(f) Wells for drinking water

The program provides a dug-well in the school compound, if there is groundwater. This well may be used by villagers, and water charges may also contribute for income-generation. A village community is responsible for managing and maintaining the dug-well.

4) Monitoring and Evaluation

It is important to review how many people access to the community center and how they used it. It should also be reviewed how the community center is operated and maintained. Monitoring and evaluation will be conducted by the provincial department with cooperation of the village community.

II-3.4 Component D: Support for Savannakhet Teacher's Training College

1) Program Outline

Building new primary schools will require additional primary school teachers. The Savannakhet Teacher's Training College (TTC) covers SKR for training of teachers. The Savannakhet TTC currently has 332 students for primary schools and can provide no more than 150 new primary school teachers annually³. This program aims at increasing student-capacity of the Savannakhet TTC in order to create more primary school teachers by increasing supports to TTC as follows:

<p>FACILITY EXPANSION Building a dormitory Building a classroom building Building water supply system</p> <p>SUPPLY OF EQUIPMENT Provision of computers Provision of English textbooks, audio-visual equipment and materials Provision of a fishpond</p> <p>Others Establishment of scholarship fund for ethnic minorities</p>

³ 1999 data provided by the Savannakhet TTC.

Primary Education Expansion

(a) Dormitory building

There are currently 3 dormitory buildings for 288 students in the Savannakhet TTC. To increase its student-capacity, it is required to build an additional dormitory, capable of accommodating 200 students.

(b) Classroom building

There are 24 classrooms in the Savannakhet TTC. To increase the annual number of new primary teachers, an additional classroom block is necessary. Preferably it should house 8 classrooms.

(c) Building water supply system

This area faces a shortage of water. Although there is a water tank on the campus, it does not provide enough water. TTC now buys water from outside, and it is a financial burden. Under such circumstances, toilet flush and shower rooms in dormitories do not work. To solve this problem, it is necessary to provide additional wells or extend a pipe line from the Savannakhet water supply system.

(d) Computer facilities

Computers will enhance the quality and efficiency of education. Computers can also bring an additional income to TTC if they are used for open tutorial class for local people. The income from the open tutorial class can be used to maintain the facilities and expand its capacity.

(e) Provision of English textbooks, audio-visual equipment and materials

It is also desirable to strengthen the English language course for students and to open an English tutorial class targeting local business persons and students. Some materials and equipment for this activity will be provided by the proposed program.

(f) Provision of fishpond

There are extensive paddy fields behind the TTC compound. To generate some income and mitigate financial difficulty, fish cultivation in the campus is planned. Fish can be consumed by the students and it can also be sold. The program can provide fishponds in the school campus to support the TTC operations.

(g) Establishment of scholarship fund for ethnic minorities

There are currently 4 ethnic minority students in the Savannakhet TTC. Only one student is financially assisted by TTC, while three others are supported by foreign donors. This financial support for ethnic minority students is successful and it is expected to have a considerable impact if extended. To promote such a program, additional financial arrangement is needed in the form of a scholarship fund.

2) Facility, Equipment, and Others

(a) Dormitory building

Two dormitory buildings are designed to accommodate 100 students each. This building is composed of 12 rooms, toilets, shower rooms, and dining rooms. In addition, 100 sets of two-story (bunk) bed will be prepared.

(b) Classroom building

A classroom block is composed of 8 classrooms, each of which can accommodate 50 students at a maximum. 400 sets of desk and chair, 8 blackboards, 8 sets of desk and chairs for teachers will be required.

(c) Water supply system

Among several options, a pipeline from the Savannakhet water supply system will be considered.

(d) Computers

The Savannakhet TTC now has only 6 sets of computers. In order to enhance the computer skills of the students (720 including primary teacher course and secondary school teacher course), it is proposed to purchase 100 sets of computers. (i.e., 50 sets at the initial stage and additional 50 sets at the later stage).

(e) English textbooks, audio-visual equipment and materials

To improve the English language course in TTC and to start additional English tutorial classes for local people as one of the income-generating activities, it is necessary to provide equipment and materials related to English study, e.g., English textbooks for elementary and intermediate levels, English cassette tapes, a TV set, a VCR, and English videos.

Primary Education Expansion

(f) Fishponds

To cultivate fish in the campus as one of the income-generating activities, fishponds will be provided. A fishpond will be designed in area of 40mx70m located behind the TTC main campus. It will also enhance the amenity of TTC.

(g) Establishment of scholarship fund for ethnic minorities

To promote enrollment of ethnic minorities to TTC, scholarships will be provided. The program envisages awarding scholarships to 10 students annually at the beginning, and increasing the numbers up to 30 at later stages. The scholarship will cover tuition, study material fees, dormitory fees, and some living allowance. Each student will be provided with US\$ 80 to 100 per year for the above fees and allowances.

Layout of these facilities are shown in Attachment VII.

II-4 Implementation Schedule

In the first stage (2002-2005), 50 core villages each in Savannakhet and Khammouan are targeted together with their satellite villages. During and after implementation, it is planned to monitor and evaluate this phased operation.

		2002	03	04	05
Component A	To build 100 primary schools in core villages				
Component B	To prepare income-generating activities				
	To organize a formal association				
	To operate income-generating activities				
Component C	To operate community center				
	To manage First Aid Box				
	To provide food				
	To provide dug-wells				
Component D	To support facility expansion				
	To support equipment				
	To create scholarship fund				
Monitoring & Evaluation					

Source: JICA Study Team

Figure II-6 Implementation Schedule

II-5 Financial Plan

1) Estimated Initial Investment Cost

The initial investment cost for implementing the proposed program is estimated as summarized below. A breakdown of the costs for primary school building is shown in Attachment VIII.

**Table II-9 Estimated Cost of Primary School Expansion and Improvement
(Savannakhet Province)**

Component/ Items		Unit Cost (US\$)	Unit	Total Initial Investment Cost (US\$)
Primary school building (Component A)	5-classroom	60,000	50	3,000,000
	3-classroom	42,000	25	1,050,000
	2-classroom	33,000	11	363,000
Income-Generating Activities (Component B)	Cattle raising	2,850	9	25,650
	Pig raising	4,520	14	63,280
	Chicken raising	2,440	10	24,400
	Fish culture	2,570	17	43,690
	Fruit tree planting	1,675	50	83,750
Community center (Component C)	First Aid Kit	50	86	4,300
	School Feeding Program	3,000	36	108,000
Savannakhet TTC (Component D)	Dormitory	218,400	2	436,800
	Classroom/equipment	101,000	1	101,000
Sub-total				5,303,870
Consulting/Management Service	(approx. 15%)			796,130
Total				6,100,000

**Table II-10 Estimated Cost of Primary School Expansion and Improvement
(Khammouan Province)**

Component/ Items		Unit Cost (US\$)	Unit	Total Initial Investment Cost (US\$)
Primary school building (Component A)	5-classroom	60,000	50	3,000,000
	3-classroom	42,000	48	2,016,000
	2-classroom	33,000	13	429,000
Income-Generating Activities (Component B)	Cattle raising	2,850	12	34,200
	Pig raising	4,520	12	54,240
	Chicken raising	2,440	13	31,720
	Fish culture	2,570	13	33,410
	Fruit tree planting	1,675	50	83,750
Community center (Component C)	First Aid Kit	50	111	5,500
	School Feeding Program	3,000	18	54,000
Savannakhet TTC (Component D)	Computer	2,000	50	100,000
	English materials	3,570	1	3,500
	Fishpond	2,570	1	2,570
	Scholarship	1,500	1	1,500
Sub-total				5,859,390
Consulting/Management Service	(approx. 15%)			870,610
Total				6,730,000

Primary Education Expansion

2) Operation Cost

Management of schools and community centers rely mainly on voluntary services of the villagers, and the following items will be considered as operation cost:

Table II-11 Operation Cost (Savannakhet Province)

Component/ Items		Unit Cost (US\$)	Unit	Total Operation Cost (US\$)
Primary school building Maintenance (Component A)		200	86	17,200
Income-Generating Activities (Component B)	Cattle raising	70	9	630
	Pig raising	1,020	14	14,280
	Chicken raising	170	19	3,230
	Fish culture	80	17	1,360
	Fruit tree planting	42	50	2,100
	Sub-total			21,600
Community Center Equipment Maintenance (Component C)	First Aid Kit	20	86	1,720
	Total			40,520

Table II-12 Operation Cost (Khammouan Province)

Component/ Items		Unit Cost (US\$)	Unit	Total Operation Cost (US\$)
Primary school building Maintenance (Component A)		200	111	22,200
Income-Generating Activities (Component B)	Cattle raising	70	12	840
	Pig raising	1,020	12	12,240
	Chicken raising	170	13	2,210
	Fish culture	80	13	1,040
	Fruit tree planting	42	50	2,100
	Sub-total			18,430
Community Center Equipment Maintenance (Component C)	First Aid Kit	20	111	2,220
	Total			42,850

Table II-13 Operation Cost (Savannakhet TTC)

Component/ Items		Unit Cost (US\$)	Unit	Total Operation Cost (US\$)
Support to TTC (Component D)	Computer maintenance	5	50	250
	English Equipment Maintenance	250	1	250
	Fish culture	80	1	80
	Total			580

3) Net Income

(a) Primary school income-generating activities

Income-generating activities will bring some revenue. However, the net income is expected to be small at the beginning. The amount of net income should increase year by year. The estimated amount of net income by activity is calculated as follows:

Table II-14 Estimated Net Income

Component/ Items		Net Income (US\$)				
		1st year	2nd year	3rd year	4th year	5th year
Income-Generating Activities (Component B)	Cattle raising	-51	-72	-72	428	428
	Pig raising	387	774	774	774	774
	Chicken raising	118	235	235	235	235
	Fish culture	302	604	604	604	604
	Fruit tree planting	-21	-21	-21	-21	172
Total		807	1,613	1,613	2,041	2,213

The annual of net income in respective province is estimated as follows:

Table II-15 Annual Revenues by Province

	Net Income (US\$)				
	1st year	2nd year	3rd year	4th year	5th year
Savannakhet	10,223	21,756	21,756	26,256	35,906
Khammouan	8,442	18,281	18,281	24,281	33,931

In the Savannakhet TTC, computer and English tutorials are proposed as follows:

- Computer tutorial class:

- Level of classes: elementary and intermediate
- Frequency: twice a week
- Duration of class: 90 minutes each and 1 month to complete the course
- Class size: 45 students each
- Charge: US\$ 1 per class (Total cost of course \$8/student)
- Available of Course: 10 times a year

Primary Education Expansion

- English tutorial class:
 - Level of class: elementary and intermediate
 - Frequency: twice a week
 - Duration of class: 90 minutes each and 3 month to complete
 - Class size: 15 students each
 - Charge: US\$ 1 per class (Total cost per student \$24)
 - Available of Course: 6 times a year

Table II-16 Net Income of Savannakhet TTC

Component/Items		Net Income (US\$)				
		1st year	2nd year	3rd year	4th year	5th year
TTC Income-Generating Activity (Component D)	Computer Tutorial	3,600	3,600	3,600	3,600	3,600
	English Tutorial	2,160	2,160	2,160	2,160	2,160
	Fish culture	302	604	604	604	604
Total		6,062	6,364	6,364	6,364	6,364

II-6 Preliminary Evaluation

In the evaluation of this Program, the following factors will be taken into account:

- Component A**
(1) Enrollment ratio at primary education in SKR
- Component B**
(2) Situation of income-generating activities
- Component C**
(3) Use of community centers
(4) Maintenance of community centers
(5) Willingness to study and Awareness of Education
- Component D**
(6) The number of new teachers from the Savannakhet TTC

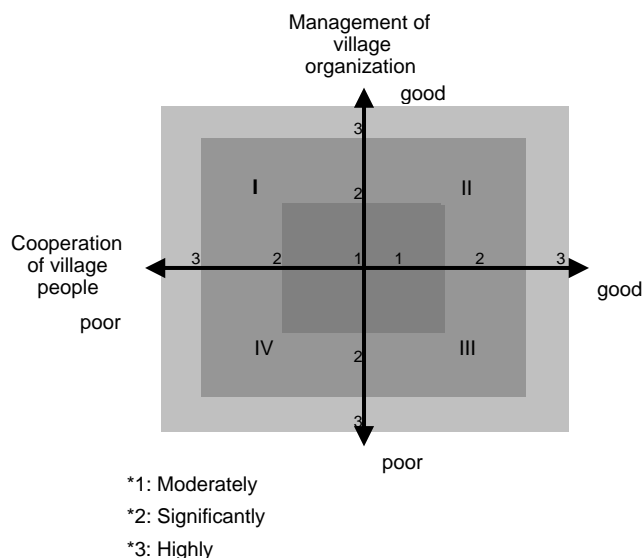
1) Enrollment ratio of primary education in SKR

The selected 100 core villages and 89 satellite villages account for only 8.1% of total number of villages in SKR. However, the provision of new primary schools in these villages will have a significant impact on the enrollment ratio of primary education in SKR. All school-aged children in the selected villages will have

physical access to primary schools under this Program. Unless there are any political and social constraints preventing children from going to school, all school-aged children in these villages are expected to enroll. Under this assumption, an additional 13,000 children aged 6 to 10 can attend school in SKR (i.e., 8,300 children in Savannakhet and 4,700 in Khammouan). These increased numbers will greatly improve the enrollment ratio. In Savannakhet, the enrollment ratio is expected to rise by **7.6%**, (from 55.4% in 1995 to 63.0%). In Khammouan, it may rise by **9.8%** (from 50.9% in 1995 to 60.7%). In SKR, **8.3%** hike of the enrollment ratio will be expected.

2) Situation of income-generating activity

It is important to review how income-generating activities would be effectively worked out. A level of cooperation will be one of the significant indicators. The evaluation of income-generating activities can focus mainly on two factors; i.e., cooperation of villagers and the management by village communities. The evaluation should fall into the second zone (II) in the diagram below.



Source: JICA Study Team

Figure II-7 Evaluation of Income-Generating Activity

Income-generating activity at primary school aims at supplementing the necessary costs for school operations. As discussed above, the operation cost for the proposed primary school system is estimated to be approximately US\$ 200 to 250

Primary Education Expansion

annually. It is important that the net income from income-generating activities can cover such costs.

3) Use of community center

Frequency of using the community center for village activities, the number of people accessing the community center, and the purpose of using the community center can be major indicators when evaluating the functions of the community center. It is ideal that all villagers would have access at least once a week, and various activities would have been organized by villagers.

4) Maintenance of community center

The situations of cleaning and organizing materials are key factors to evaluate this sub-program. In addition, the maintenance of the "First Aid Kit" is also important. Whether villagers who used some medicine from the "First Aid Kit," gave it back to the kit is a crucial point to continue this activity.

5) Willingness to study and awareness of education

This factor is not easy to measure. The change of number of children's enrollment ratio, however, can be substituted as a measure of children's willingness to study. In the selected villages, for example, if there is more than a 70% hike in the number of children enrolling in primary schools, it is judged that willingness of children to study has been elevated substantially.

6) Number of new teachers from the Savannakhet TTC

The current number of annual graduates (150) will be increased. Under the provision of various supports to the Savannakhet TTC, additional 100 to 150 graduates would be created annually by 2005. The annual number of teachers dispatched to the rural areas and the number of ethnic minority students accepted by TTC are also key indicators for evaluation.

Primary Education Expansion

Attachment I

**Core Village Selected for Primary School Building
(Savannakhet Province)**

No.	District	Name of village	No. on Map	Existence of primary school	Years of teaching	School condition	No. of buildings	No. of classroom	No. of students	No. of teachers	Village population	No. of satellite villages
1	Khanthabouly	Phone sim neua	63	Yes	5	Bad	4	14	458	17	1,547	1
2		Sa phan neua	1	Yes	5	Bad	5	19	609	28	1,666	4
3	Outhoomphone	Nong pene	64	Yes	5	Bad	2	5	168	5	567	2
4		Phin kang	98	Yes	4	Bad	2	5	245	7	486	4
5		Non sa wang	61	Yes	5	Bad	1	6	246	7	1,096	2
6	Atsaphangthong	Na lai khonrk	26	Yes	3	Bad	1	5	89	6	390	2
7		Na phian	14	Yes	2	Bad	1	5	104	5	731	-
8		Dong khum	25	Yes	5	Bad	1	3	221	8	1,205	-
9	Phine	Kham sa-i	110	Yes	4	Bad	1	5	147	5	835	4
10		A-louay may	27	Yes	4	Bad	1	5	91	4	714	3
11		Jutsum Sai po vien	n.a.	Yes	5	Bad	n.a.	n.a.	n.a.	4	1,310	4
12		Sai som boun	91	Yes	5	Bad	1	5	141	n.a.	672	-
13		Nonh sai	106	Yes	3	Bad	1	4	164	6	1,730	4
14	Sepone	Houaysane	111	Yes	5	Bad	1	5	99	5	713	-
15		Vong vi lay	2	Yes	4	Bad	2	8	183	11	173	2
16		Nabo	9	Yes	5	Bad	1	8	244	9	1,142	2
17		Muang chanh	16	Yes	5	Bad	1	5	73	5	452	2
18		Phone hai	11	Yes	5	Bad	3	5	144	6	503	2
19	Nong	Nong vi lay	28	Yes	5	Bad	1	6	140	6	285	-
20		Kai Sone	24	Yes	2	Bad	1	2	78	3	229	2
21		Dong na sane	50	Yes	2	Bad	1	4	35	1	251	-
22		A-pork	45	Yes	2	Bad	1	4	53	2	551	2
23		A-lau phor	38	Yes	1	Bad	1	1	24	1	308	-
24	Thapangthong	Boudtaphane	19	Yes	5	Bad	1	5	104	5	633	1
25		Hintang khang	52	Yes	2	Bad	1	2	68	2	446	2
26		Napasath	15	Yes	3	Bad	1	3	66	3	488	4
27		Nonchanh	35	Yes	3	Bad	1	5	186	6	1,114	1
28	Songkhone	Thong si meuang	116	Yes	5	Bad	3	9	309	13	1,084	1
29		Ma lay thong	49	Yes	5	Bad	1	5	131	6	624	-
30	Champhone	Na teuy	114	Yes	2	Bad	3	6	340	10	2,740	1
31		Kham noy	111	Yes	3	Bad	1	5	159	3	487	3
32		Ta lea may	146	Yes	5	Bad	2	6	188	6	809	4
33	Xonnabuly	Nong pham	1	Yes	5	Bad	3	8	354	9	1,639	1
34		Toum gnae	3	Yes	5	Bad	1	5	117	6	604	-
35		Ka bao	22	Yes	5	Bad	1	5	158	5	1,062	3
36	Xaybuly	Tha kham	19	Yes	5	Bad	1	5	177	5	613	2
37		Dong phung	9	Yes	5	Bad	2	5	225	5	830	-
38	Vilabuly	Na gnom neua	67	Yes	5	Bad	3	6	251	5	1,039	4
39		Sa lo	83	Yes	5	Bad	2	5	137	n.a.	475	4
40		Nam khip	96	Yes	5	Bad	2	7	227	n.a.	1,004	2
41		Na phi hang	42	Yes	4	Bad	1	4	78	2	505	1
42		Keng lek	73	Yes	2	Bad	1	1	26	n.a.	255	2
43			Kouad hine	92	Yes	5	Bad	4	6	215	8	1,221
44	Atsaphone	Pho say	33	Yes	5	Bad	1	4	166	5	1,009	1
45		Wang hai	9	Yes	5	Bad	2	5	100	5	477	1
46	Xayphouthong	Na kham	16	Yes	5	Bad	3	14	302	13	847	1
47		Nam phu	39	Yes	5	Bad	3	10	286	11	710	2
48	Phalanxay	Pha lane kang	12	Yes	5	Bad	2	8	199	n.a.	422	4
49		Na kea	61	Yes	5	Bad	2	5	169	n.a.	226	4
50		Pha lane tai	1	Yes	5	Bad	2	7	271	n.a.	1,113	1

* Kham sa-l village (No. 9 on the table) in Phine is also selected as a pilot village for "New Village Initiatives."

Core Village Selected for Primary School Building (Khammouan Province)

No.	District	Name of village	No. on Map	Existence of primary school	Years of teaching	School condition	No. of buildings	No. of classroom	No. of students	No. of teachers	Village population	No. of satellite villages
1	Thakek	Dalasavang	69	Yes	5	Bad	n.a.	5	244	6	1,167	1
2		Namouang	46	Yes	5	Bad	n.a.	6	292	7	763	3
3	Hinboon	Tha Na Neua	45	Yes	n.a.	Bad	n.a.	n.a.	362		1,821	5
4		Bong	63	Yes	5	Bad	n.a.	4	156	4	951	4
5		Mouang Khai Tai	74	Yes	5	Bad	n.a.	13	450	12	550	6
6		Sao	79	Yes	4	Bad	n.a.	2	47	2	913	3
7		Phonh Kham	107	Yes	2	Bad	n.a.	2	33	1	707	1
8		Phonh Sa Vanh	105	Yes	n.a.	Bad	n.a.	n.a.	238	n.a.	799	3
9		Sa Ma Khi Xay	119	Yes	5	Bad	n.a.	8	280	9	1,659	1
10		Hinboon Neua	127	Yes	5	Bad	n.a.	5	119	5	1,179	2
11		Meng	155	Yes	5	Bad	n.a.	5	188	5	1,885	4
12		Vieng Thong	159	Yes	5	Bad	n.a.	5	100	3	855	1
13		Koup	6	Yes	5	Bad	n.a.	4	74	4	n.a.	n.a.
14		Na Than	88	No	-	-	-	-	-	-	n.a.	n.a.
15	Nonobok	Donokhano	30	Yes	5	Bad	n.a.	5	300	5	1,150	1
16		Phonkhiu	1	Yes	5	Bad	n.a.	8	276	9	598	2
17	Xebangfay	Kiose	?	Yes	-	Bad	n.a.	-	330	-	1,455	0
18		Sang	27	Yes	5	Bad	n.a.	9	206	9	1,206	0
19	Gnommlath	Thapha	32	Yes	n.a.	Bad	n.a.	n.a.	53	n.a.	295	3
20		Phathoung	39	Yes	2	Bad	n.a.	2	57	2	357	2
21		Gnommalat tai	17	No	-	-	-	-	54	-	261	2
22		Vatthad	2	No	-	-	-	-	40	-	244	5
23		Sivilav	27	Yes	1	Bad	n.a.	1	30	1	274	2
24	Mahaxay	Phon Meuang	79	Yes	5	Bad	n.a.	5	286	4	512	3
25		Mahaxay	2	Yes	5	Bad	n.a.	11	260	14	564	4
26		Pa Nam	57	Yes	4	Bad	n.a.	4	213	2	431	2
27		Phon Na Dee	66	Yes	1	Bad	n.a.	1	79	1	325	3
28		Xang Phok	73	No	n.a.	Bad	n.a.	n.a.	201	n.a.	422	3
29	Xaybuoathong	Pa Kouai Thong	3	Yes	2	Bad	n.a.	2	47	1	740	6
30		Na Noi Thong	29	Yes	2	Bad	n.a.	2	52	2	436	10
31		Phon Na Dee	42	Yes	4	Bad	n.a.	4	83	3	314	6
32		Thakok Khene	58	Yes	5	Bad	n.a.	5	44	6	316	8
33		Si Vi Lav	13	Yes	5	Bad	n.a.	5	188	7	n.a.	n.a.
34		Keng Chone	17	Yes	5	Bad	n.a.	5	93	5	n.a.	n.a.
35		Na Ka Thing	64	No	-	-	-	-	-	-	n.a.	n.a.
36	Nakai	Thong	2	Yes	5	Bad	n.a.	5	103	3	412	4
37		Vang-giem	5	Yes	3	Bad	n.a.	3	54	2	237	1
38		Nahang	19	Yes	5	Bad	n.a.	5	108	6	523	1
39		Oudomsouak	22	Yes	5	Bad	n.a.	8	304	9	1,109	1
40		Phangdieng Tai	47	Yes	3	Bad	n.a.	1	47	1	n.a.	n.a.
41		Namie	65	No	-	-	-	-	-	-	n.a.	n.a.
42		Song	9	Yes	1	Bad	n.a.	1	28	1	n.a.	n.a.
43	Boulapa	Lang Khang	47	Yes	4	Bad	n.a.	4	60	2	n.a.	n.a.
44		KaChan Noi	53	Yes	2	Bad	n.a.	2	20	1	n.a.	n.a.
45		Xouai	56	Yes	5	Bad	n.a.	5	52	2	n.a.	n.a.
46		Keng Vak	65	Yes	2	Bad	n.a.	2	35	1	n.a.	n.a.
47		Sa Ang	66	Yes	5	Bad	n.a.	5	147	4	n.a.	n.a.
48		Na Som Boun	68	Yes	3	Bad	n.a.	3	72	3	n.a.	n.a.
49		Na Pang	72	Yes	2	Bad	n.a.	3	35	2	n.a.	n.a.
50		Na Peng	82	Yes	5	Bad	n.a.	3	108	2	325	n.a.

* Mouang Kai Tai (Hinboon, No. 5 in the table), Thapa (Gnommlath, No.19), Phathoung (Gnommlath, No.20), Pa nam (Mahaxay, No. 26), and Pa kouai Thong (Xaybuoathong, No. 29) are also selected as pilot villages for "New Village Initiative."

Primary Education Expansion

Attachment II

Satellite Villages for Primary School Construction
(Savannakhet Province)

No.	District	Name of village	No. on Map	Name of Satellite Villages, to need Primary School	No. on Map	Status of primary School	No. of School-aged children	Types of Primary School needed	
1	Khanthabouly	Phon sim neua	63						
2		Sa phan neua	1	Phon sim tai	64	No	n.a.	3-classroom	
				Dong dam duane	2	No	n.a.	3-classroom	
				Sa phan tai	11	No	n.a.	3-classroom	
				Phone sa at	9	No	n.a.	3-classroom	
3	Outhoomphone	Nong pene	64	Son sai	8	No	n.a.	3-classroom	
4		Phin kang	98						
				Phin neua	97	No	n.a.	3-classroom	
5		Non sa wang	61	Phin tay	99	No	n.a.	3-classroom	
6	Atsaphangthong	Na lai khonrk	26	Dong tha	60	No	n.a.	3-classroom	
7		Na phian	14						
8		Dong khum	25						
9		Phine	Kham sa-i	110					
10			A-louay may	27					
11			Jutsum Sai po vien	n.a.					
12			Sai som boun	91					
13			Nonh sai	106					
					Som tha vonne	102	No	n.a.	3-classroom
					Se sip jet	n.a.	n.a.	n.a.	3-classroom
14		Sepone	Houaysane	111					
15			Vong vi lay	2	Phone mouag	7	No	n.a.	3-classroom
16			Nabo	9					
17	Muang chanh		16	Na lom	17	No	n.a.	2-classroom	
18	Phone hai		11	Keng khan	12	No	n.a.	3-classroom	
				Vang mou	13	No	n.a.	3-classroom	
19	Nong	Nong vi lay	28						
20		Kai Sone	24	Tang-A-lay	13	No	n.a.	3-classroom	
				Tha Tha kang	n.a.	No	n.a.	3-classroom	
21		Dong na sane	50						
22		A-pork	45	La deu	43	No	n.a.	2-classroom	
				Kor Sene	44	No	n.a.	2-classroom	
23		A-lau phor	38	Nalaokulee	n.a.	No	n.a.	2-classroom	
24	Thapangthong	Boudtaphane	19						
25		Hintang khang	52	Hintangkhot	57	No	n.a.	3-classroom	
				Nakha ngom	58	No	n.a.	2-classroom	
26		Napasath	15						
27	Nonchanh	35							
28	Songkhone	Thong si meuang	116						
29		Ma lay thong	49						
30	Champhone	Na teuy	114						
31		Kham nov	111	Xiang barn	112	No	n.a.	3-classroom	
32		Ta lea may	146						
33	Xonnabuly	Nong pham	1	Na hor louang	2	No	n.a.	3-classroom	
34		Toum gnae	3						
35		Ka bao	22	Ka bao xe	23	No	n.a.	3-classroom	
				Ka bao tai	24	No	n.a.	3-classroom	
				Ka bao phon thong	21	No	n.a.	2-classroom	
36	Xaybuly	Tha kham	19	Tha pho xay	20	No	n.a.	3-classroom	
37	Vilabuly	Dong phung	9						
38		Na gnorn neua	67	Na bone	66	until G1	n.a.	2-classroom	
39		Sa lo	83						
40		Nam khup	96						
41		Na phi hang	42						
42		Keng lek	73	Vang ma Hang	77	until G1	n.a.	2-classroom	
			Thong louang	74	until G1	n.a.	2-classroom		
43	Atsaphone	Kouad hine	92						
44		Pho say	33						
45		Wang hai	9						
46	Xayphouthong	Na kham	16	Deng	18	until G1	n.a.	2-classroom	
47	Phalanxay	Nam phu	39						
48		Pha lane kang	12	Sing	n.a.	until G1	n.a.	3-classroom	
				Pha lane neua	13	No	n.a.	3-classroom	
49		Na kea	61	Ou dom xai	60	No	n.a.	3-classroom	
				Na sork	59	No	n.a.	2-classroom	
50		Pha lane tai	1	Peu	2	No	n.a.	3-classroom	

Satellite Villages for Primary School Construction (Khammouan Province)

No.	District	Name of village	No. on Map	Name of Satellite Vilages, to need Primary School	No. on Map	Status of primary School	No. of School-aged children (6 to 10 yr.)	Types of Primary School needed	
1	Thakek	Dalasavang	69						
2		Namouang	46						
				Sa Ngon	47	No	86	3-classroom	
				Nani Yom	48	No	50	3-classroom	
3	Hinboon	Tha Na Neua	45						
					Pha Hang Tai	44	No	n.a.	3-classroom
					Pha Hang Neua	43	No	n.a.	3-classroom
					Houay Beuak	41	No	n.a.	3-classroom
					Pha Choua	47	No	n.a.	3-classroom
4			Bong	63					
					Seng Alun	62	No	n.a.	3-classroom
5			Mouang Khai Tai	74					
					Mouang Khai Kang	75	No	n.a.	
					Muang Khai Neua	76	No	n.a.	
					Na Kham Bo	78	No	n.a.	
				Na Donh	73	No	n.a.		
				Phooh Tew	72	No	n.a.		
6		Sao	79						
				Pha Lem	82	until G1	n.a.	3-classroom	
7		Phonh Kham	107						
8		Phonh Sa Vanh	105						
				Vang Khong	104	No	n.a.	3-classroom	
				Hat Hea	102	No	n.a.	3-classroom	
9		Sa Ma Khi Xay	119						
				Kham Keo	120	No	n.a.	3-classroom	
10		Hinboon Neua	127						
11		Meng	155						
				Hat Say Kham	153	No	n.a.	3-classroom	
12		Vieng Thong	159						
13		Koup	6						
14		Na Than	88						
15	Nongbok	Dongkhang	30						
					Santyshouk	31	No	114	3-classroom
16		Phongkhiu	1						
				Laona	2	No	101	3-classroom	
17	Xebangfay	Kiose	?						
18		Sang	27						
19	Gnommlath	Thapha	32						
					Nahai	35	No	94	3-classroom
					Navain	33	No	50	3-classroom
20			Phathoung	39					
					Phontoi	44	No	50	3-classroom
21			Gnommalat tai	17					
					Soma Ath	16	until G1	65	3-classroom
					Sibounhieung	15	No	31	3-classroom
22			Vatthad	2					
					Korbong	1	until G1	65	3-classroom
					Nongseng	7	until G1	71	3-classroom
				Namixay	11	until G1	92	3-classroom	
				Khoukpadang	3	No	68	3-classroom	
				Keovilay	4	until G1	116	3-classroom	
23		Sivilay	27						
				Nongkaging	26	until G1	42	3-classroom	
				Phonsavane	25	No	61	3-classroom	
24	Mahaxay	Phon Meuang	79						
					Phon Sa Vanh	78	No	32	3-classroom
				Vang Poun	77	No	27	2-classroom	
25		Mahaxay	2						
				Mahaxay Neua	1	No	66	3-classroom	
				Mahasay Kang	2	No	150	3-classroom	
26		Pa Nam	57						
				Na Sa Thoung	59	No	40	3-classroom	
				Na Cha Loum	58	No	26	3-classroom	
27		Phon Na Dee	66						
				Taeng Thong	67	No	24	2-classroom	
28		Xang Phok	73						

Primary Education Expansion

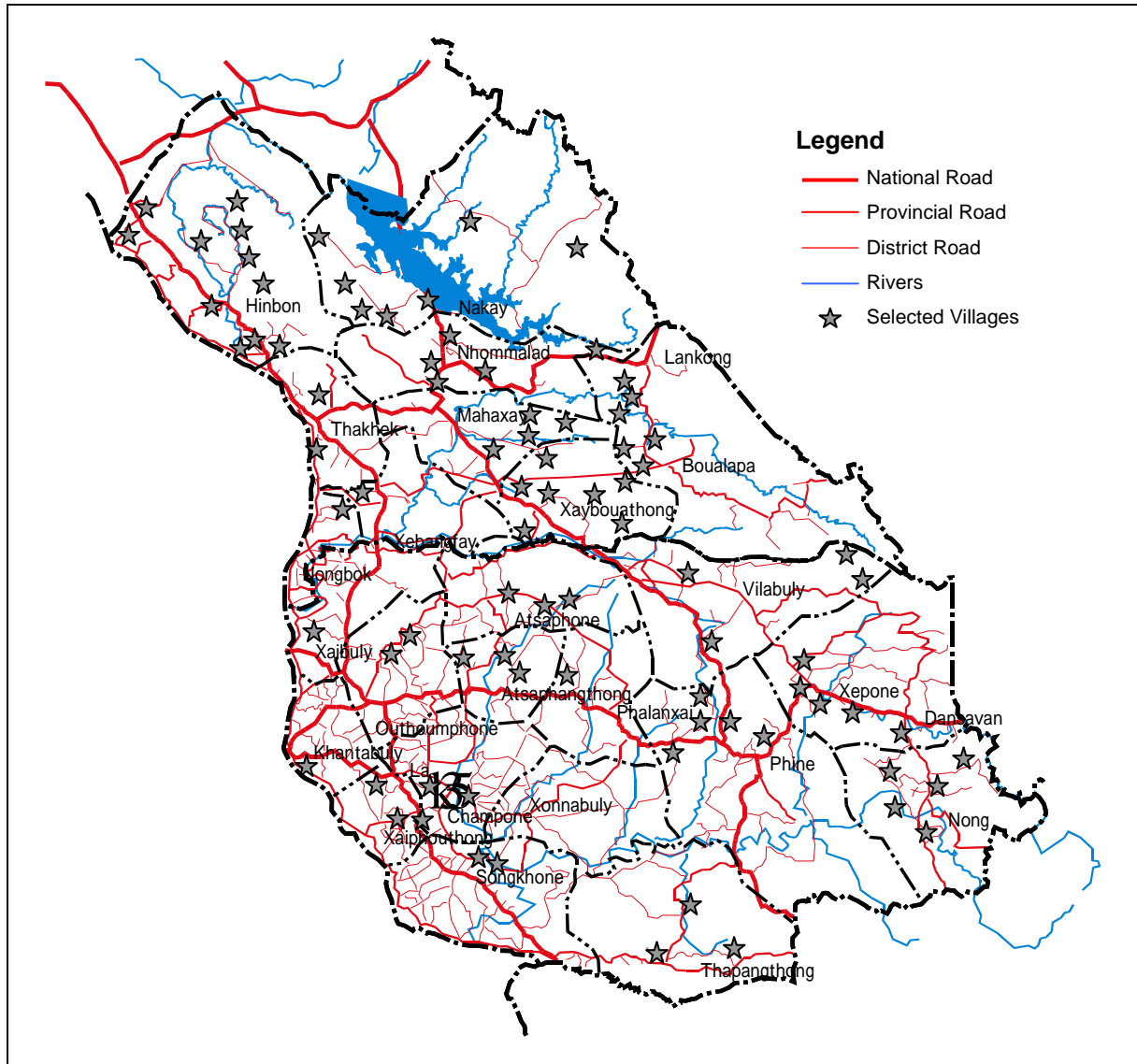
Attachment II

29	Xaybuoathong	Pa Kouai Thong	3					
				Na Ka Dom	9	until G1	51	3-classroom
				Na La Ong	6	No	23	3-classroom
				Pha Song	10	No	31	3-classroom
				Tor Heua	12	No	34	3-classroom
30		Na Noi Thong	29					
				Na Nok	34	No	40	2-classroom
				Sokthang Neua	28	No	46	3-classroom
				Non Gngang	35	No	16	2-classroom
				Ka Sae	32	No	16	3-classroom
				Na Bone	26	No	7	2-classroom
				Na Hee	31	No	27	2-classroom
31			Phon Na Dee	42				
				Pha Na Dee	41	until G1	29	3-classroom
				Houai Khon	43	No	26	2-classroom
				Dong Na Kham	44	No	90	3-classroom
32		Thakok Khene	58					
				Na Mo Tai	62	No	55	3-classroom
				Nam Dip	65	No	10	2-classroom
				Phon Kham	63	No	11	2-classroom
				Houa Khoua	60	No	18	2-classroom
				Nam Ka Por	57	No	24	3-classroom
				Naxieng Khuang	59	until G1	18	3-classroom
				Na Ka Thing	64	No	15	2-classroom
33			Si Vi Lay	13				
34			Keng Chone	17				
35		Na Ka Thing	64					
36	Nakai	Thong	2					
37		Vang-giem	5					
				Done-keo	13	No	18	3-classroom
38		Nahang	19					
			Namouang	17	No	20	2-classroom	
39		Oudomsouak	22					
				Nongboua	26	No	20	2-classroom
40		Phangdieng Tai	47					
41		Namie	65					
42		Song	9					
43	Boulapa	Lang Khang	47					
44		KaChan Noi	53					
45		Xouai	56					
46		Keng Vak	65					
47		Sa Ang	66					
48		Na Som Boun	68					
49		Na Pang	72					
50		Na Peng	82					

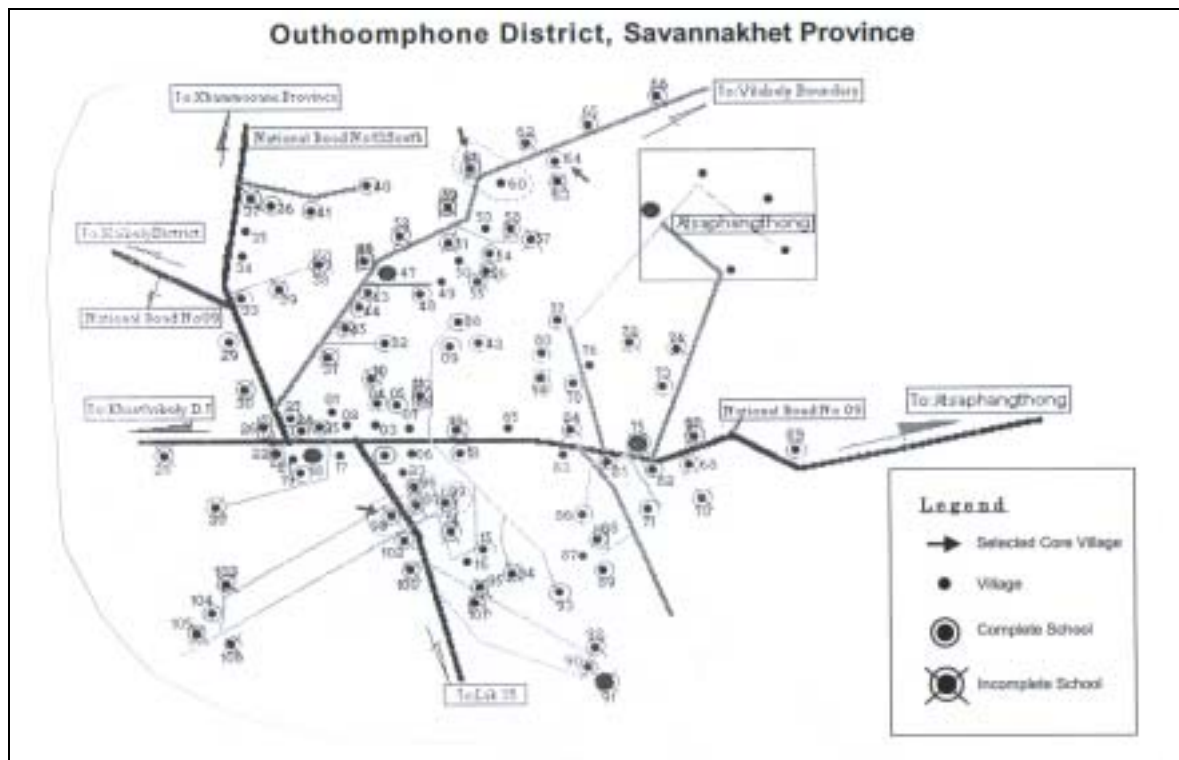
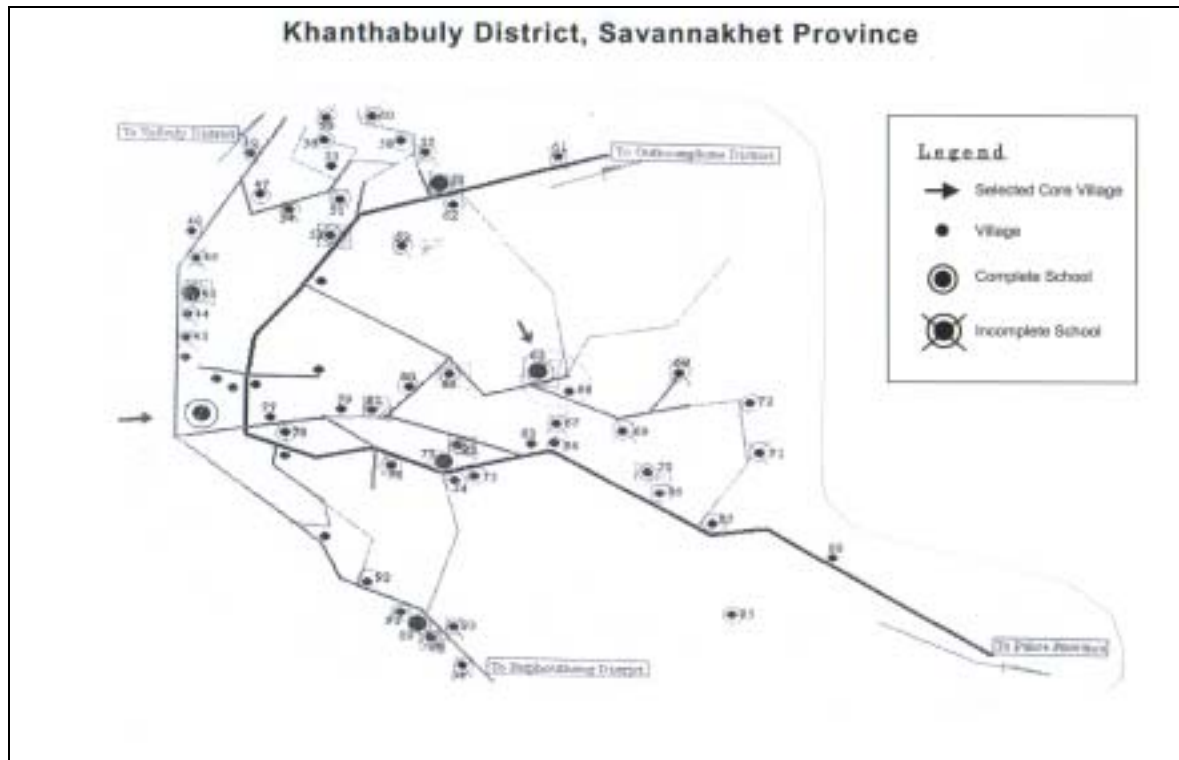
Primary Education Expansion

Attachment III

Location of Selected Villages for Primary School Construction

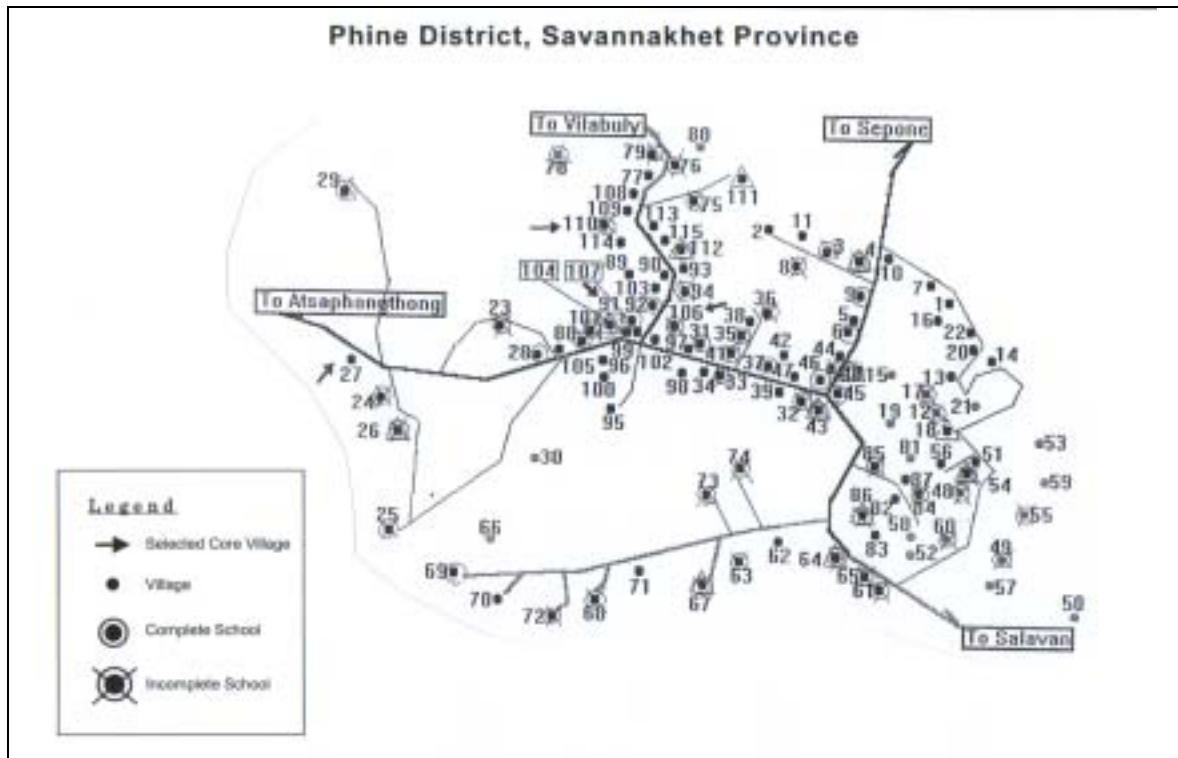
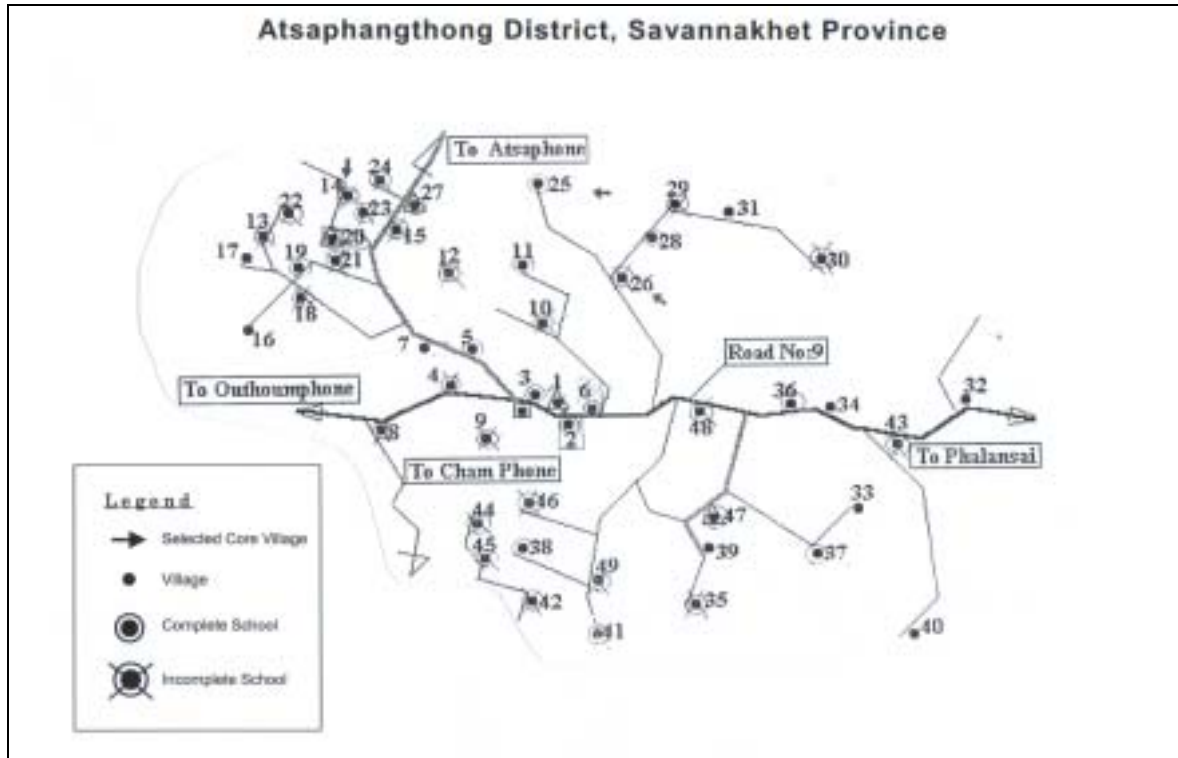


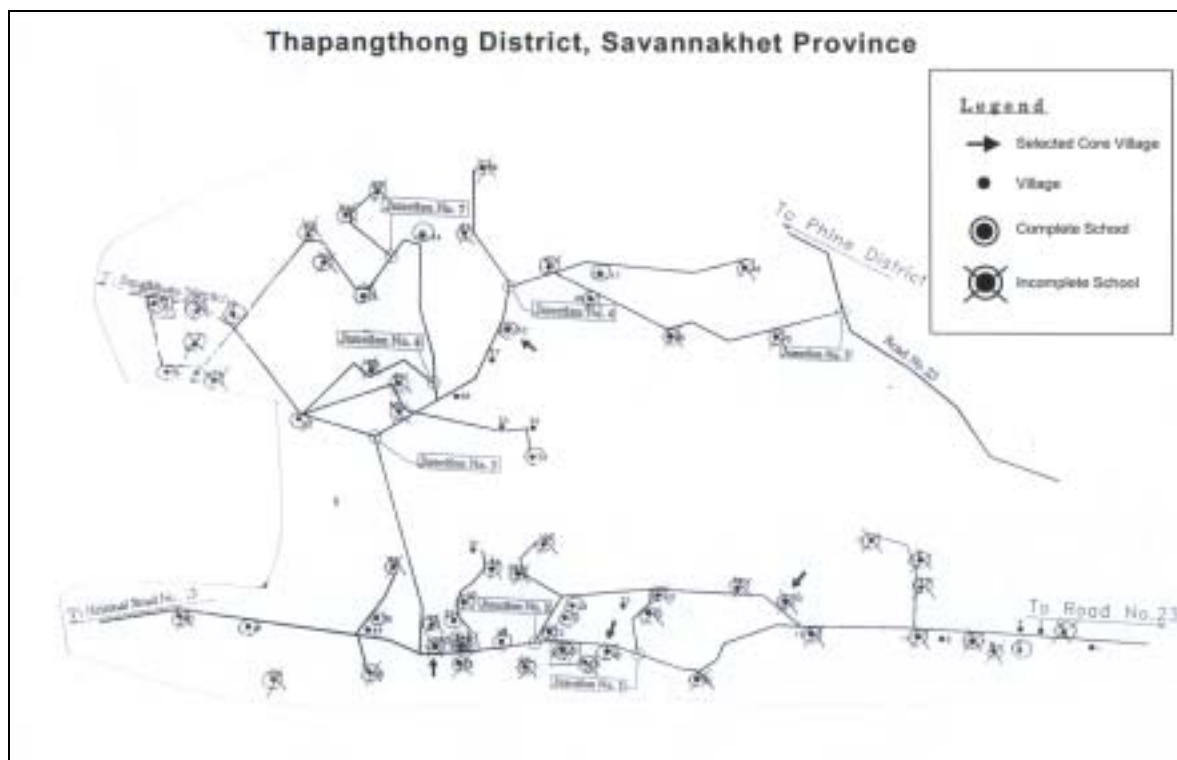
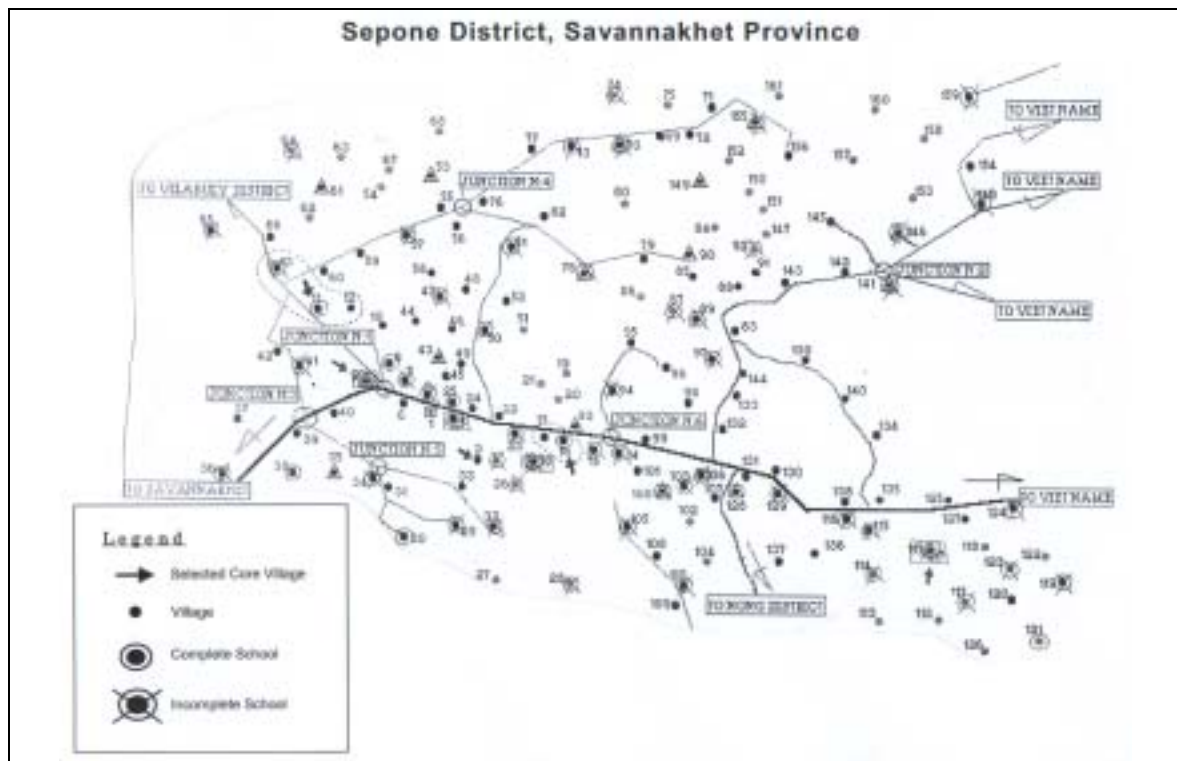
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Primary Education Expansion

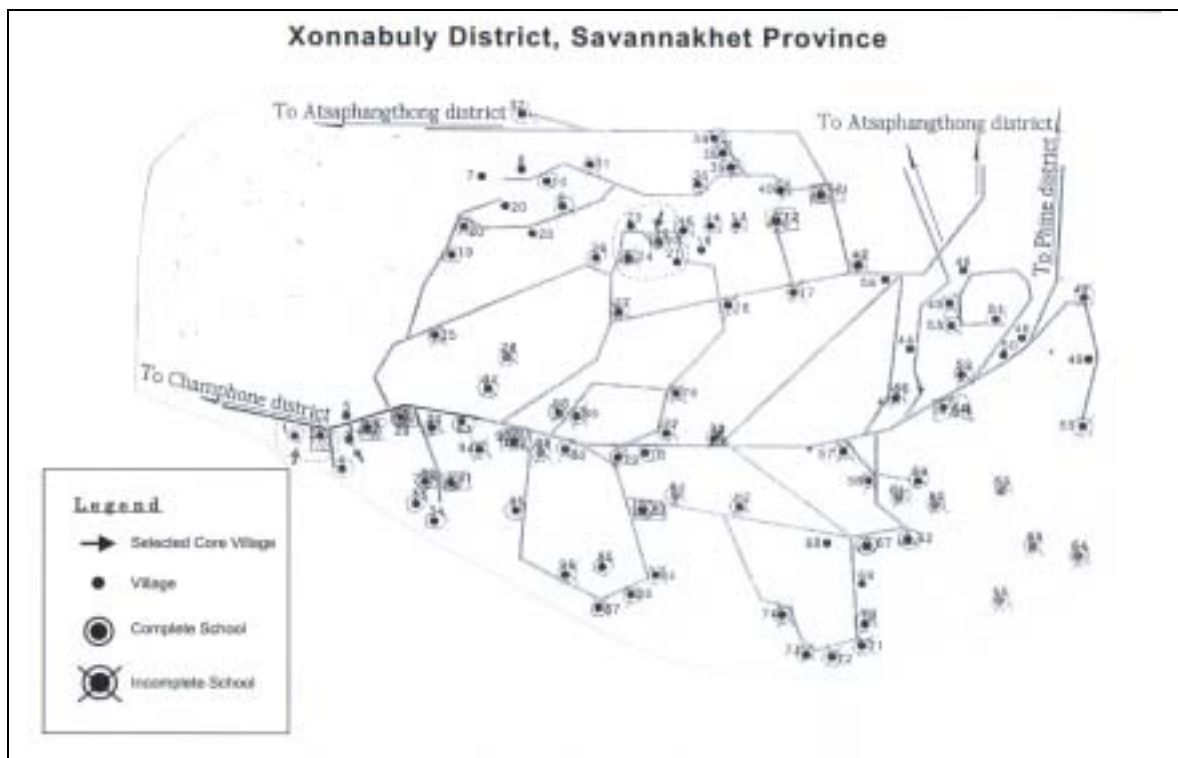
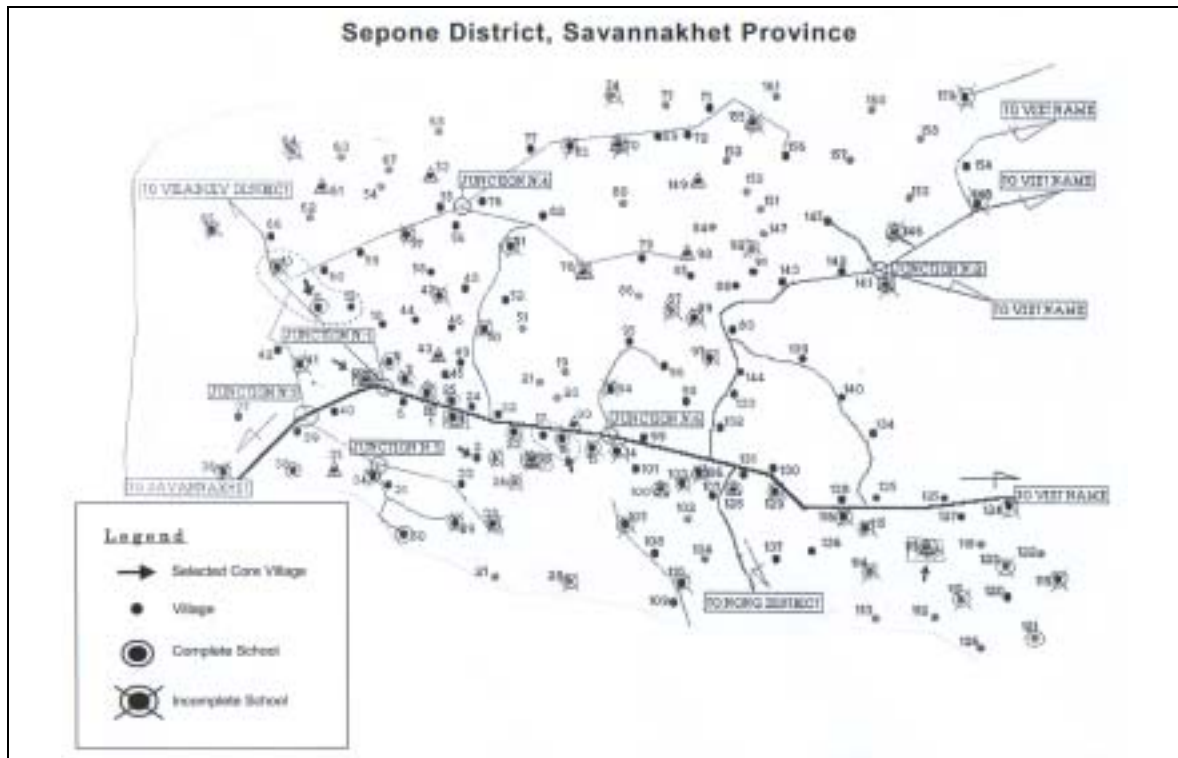
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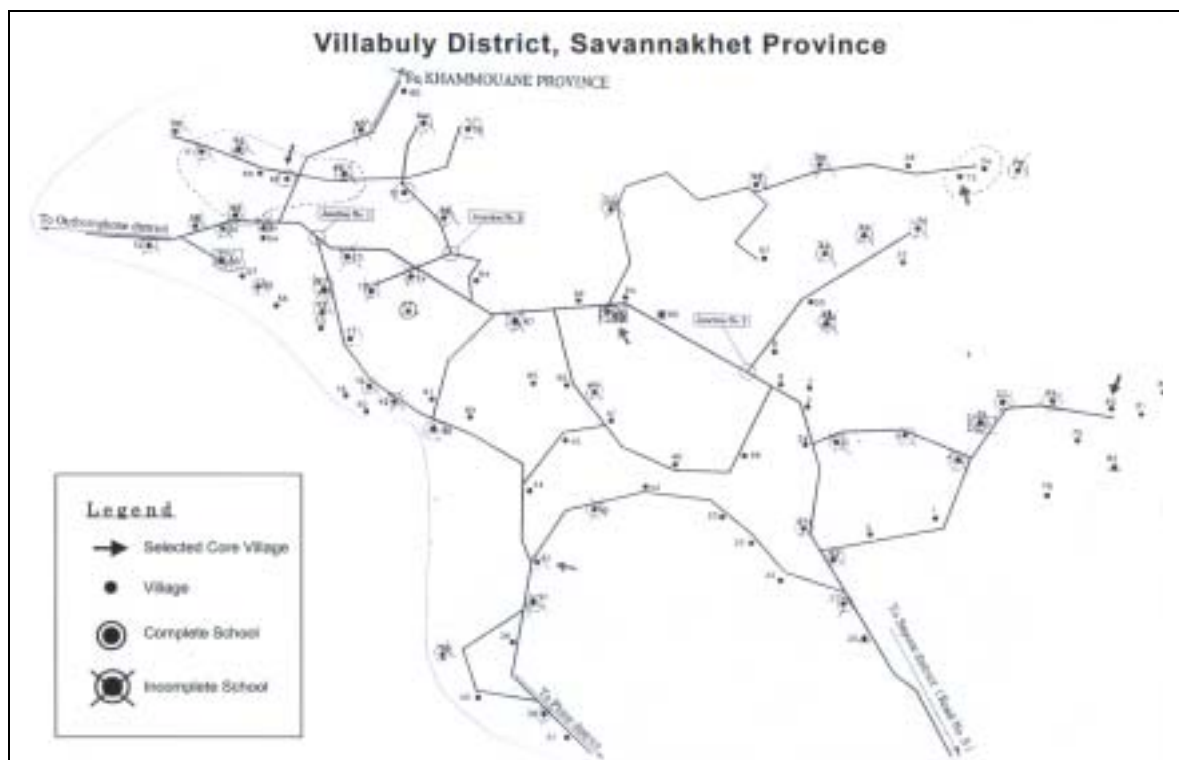
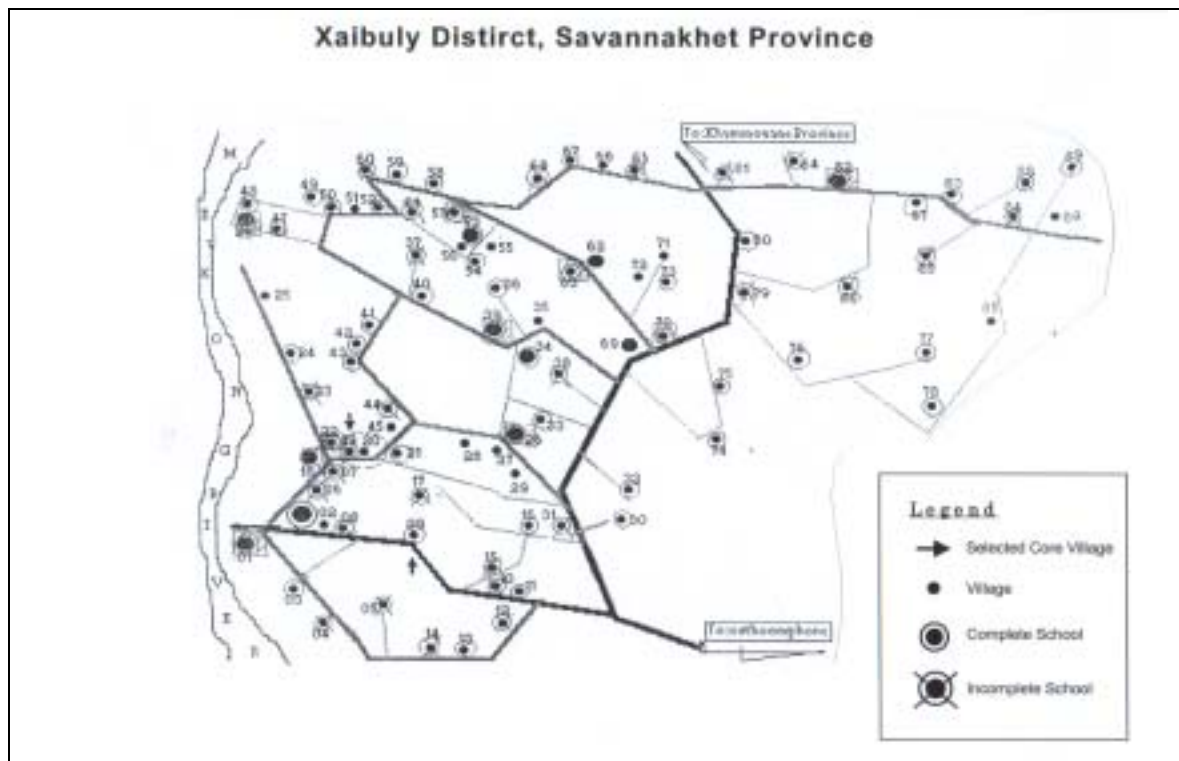




Primary Education Expansion

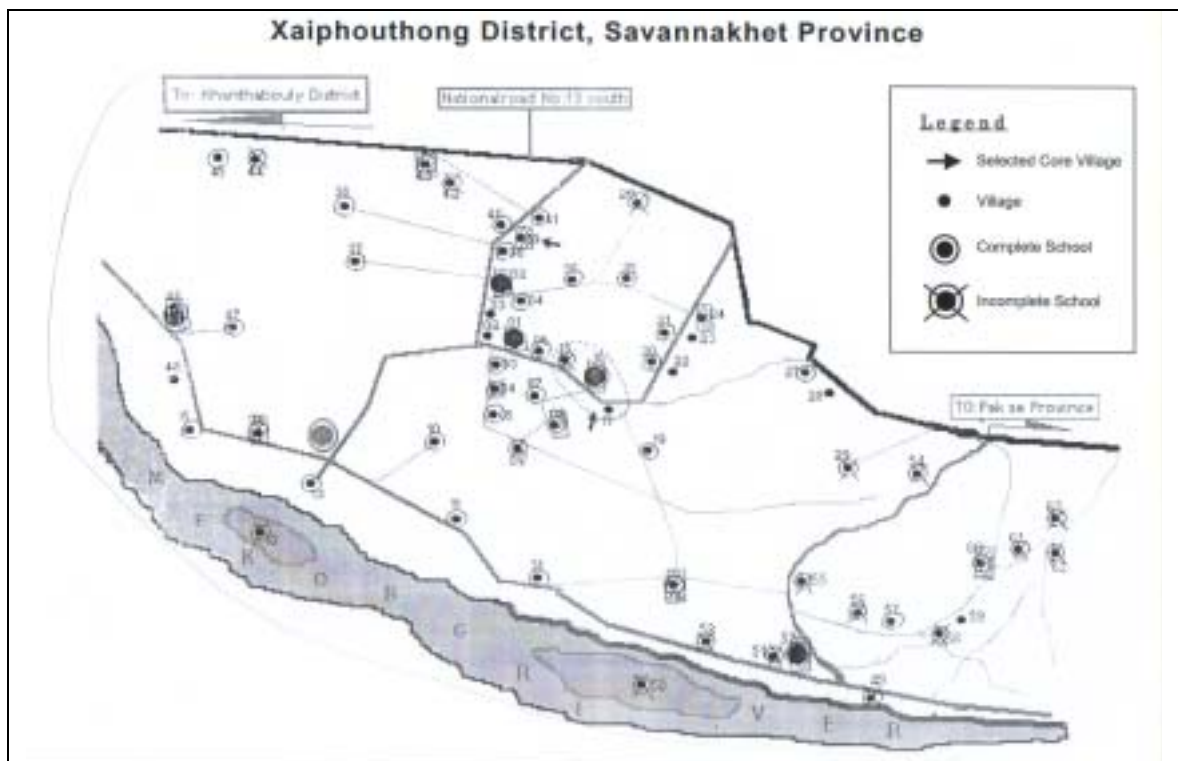
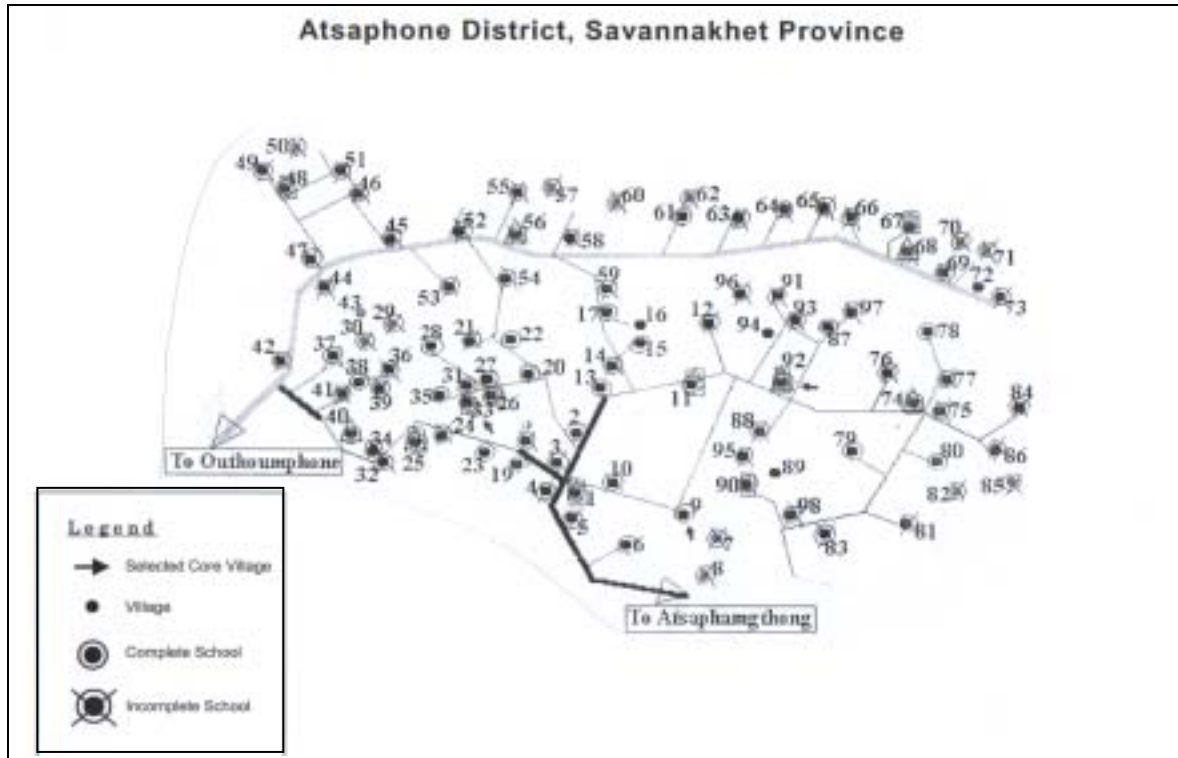
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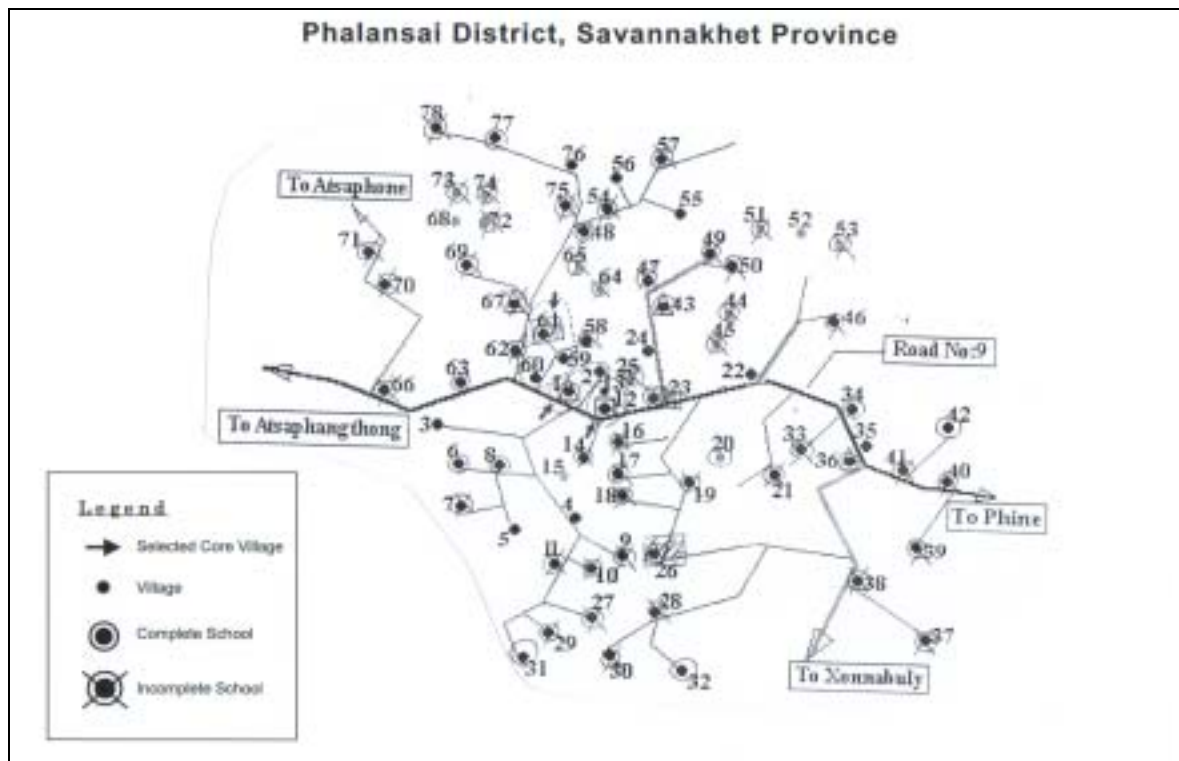


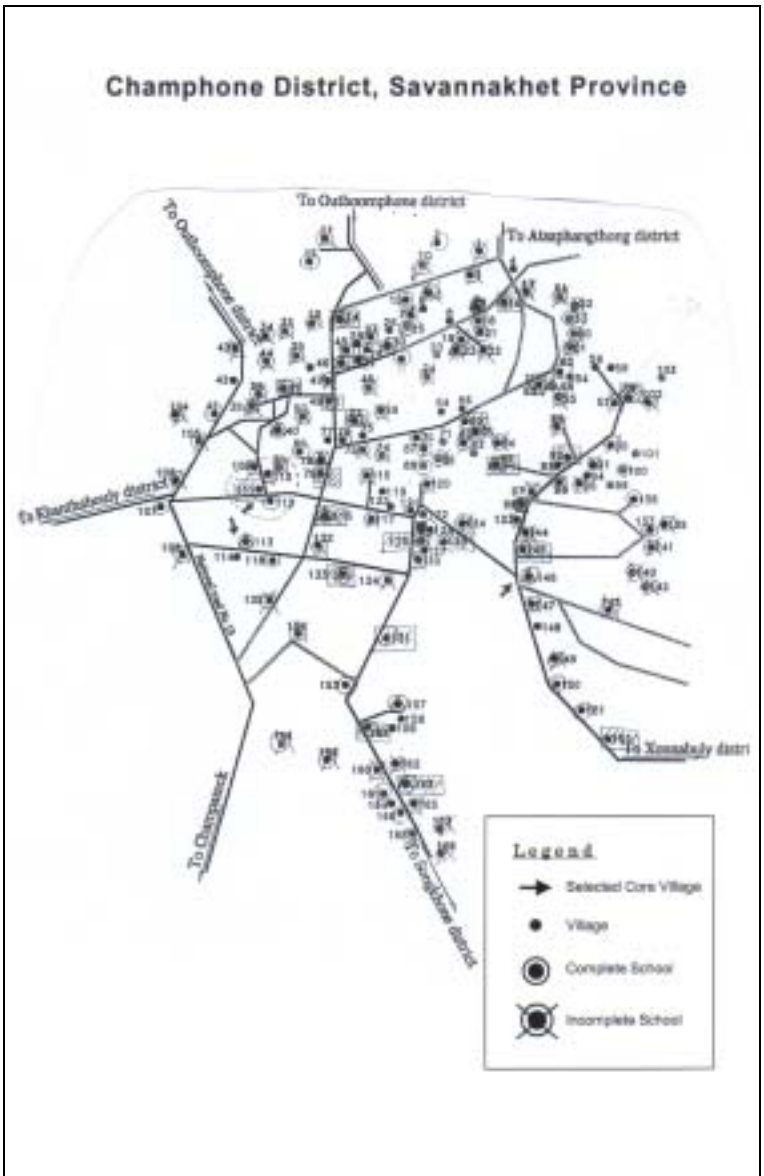
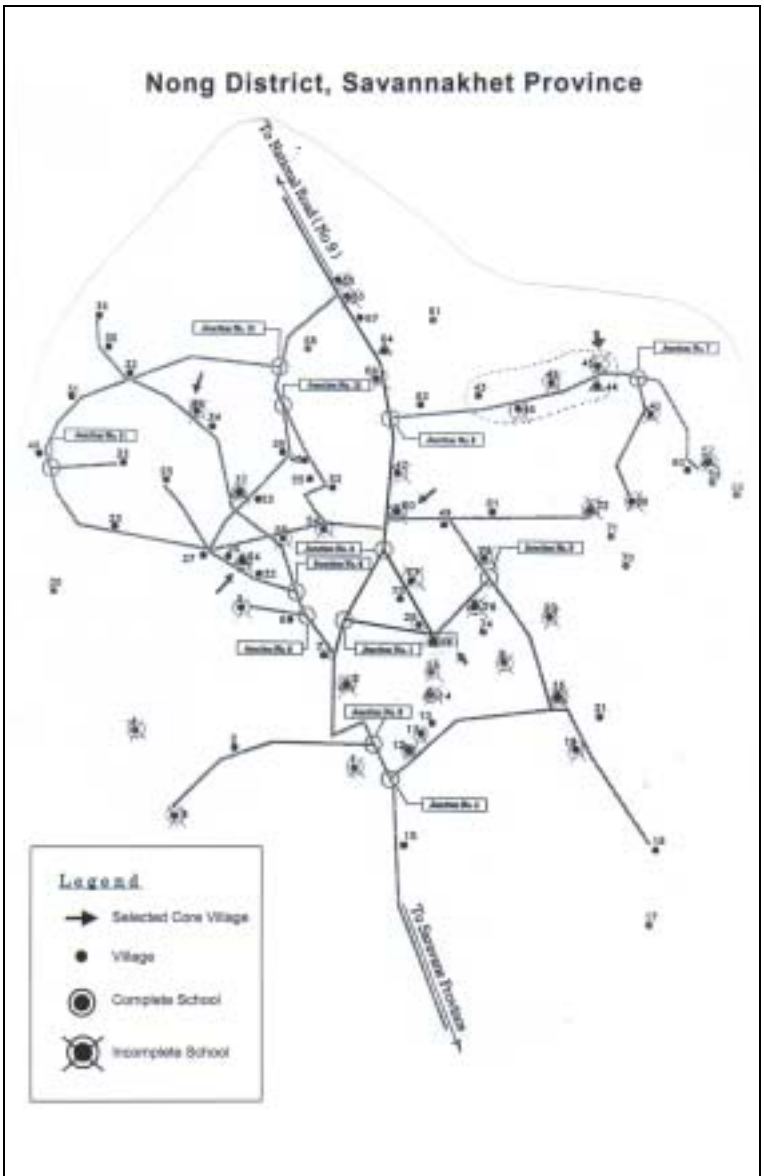


Primary Education Expansion

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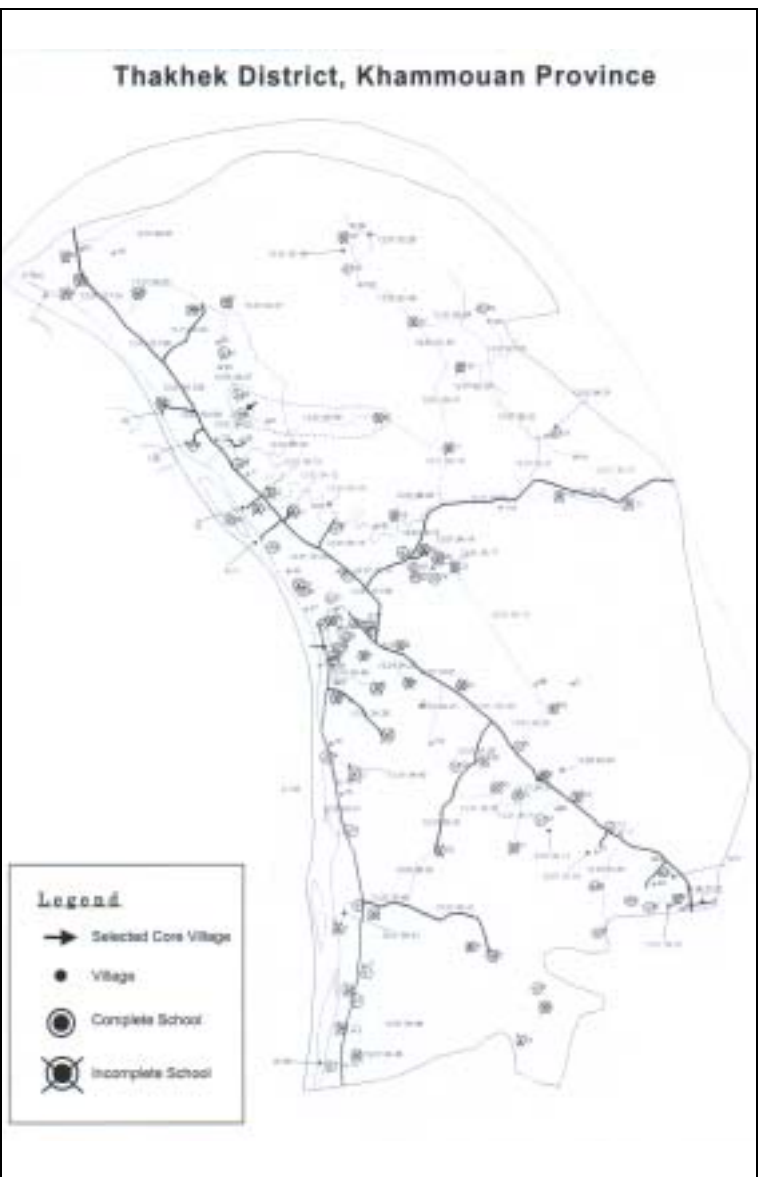
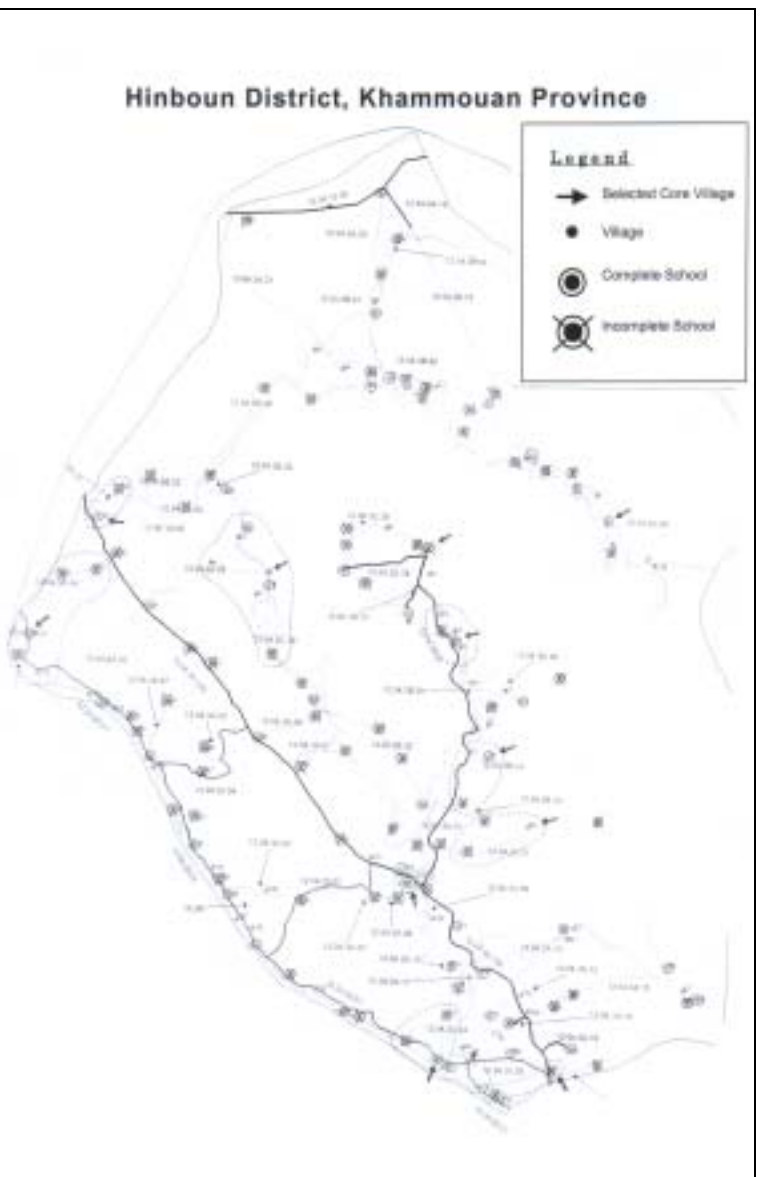


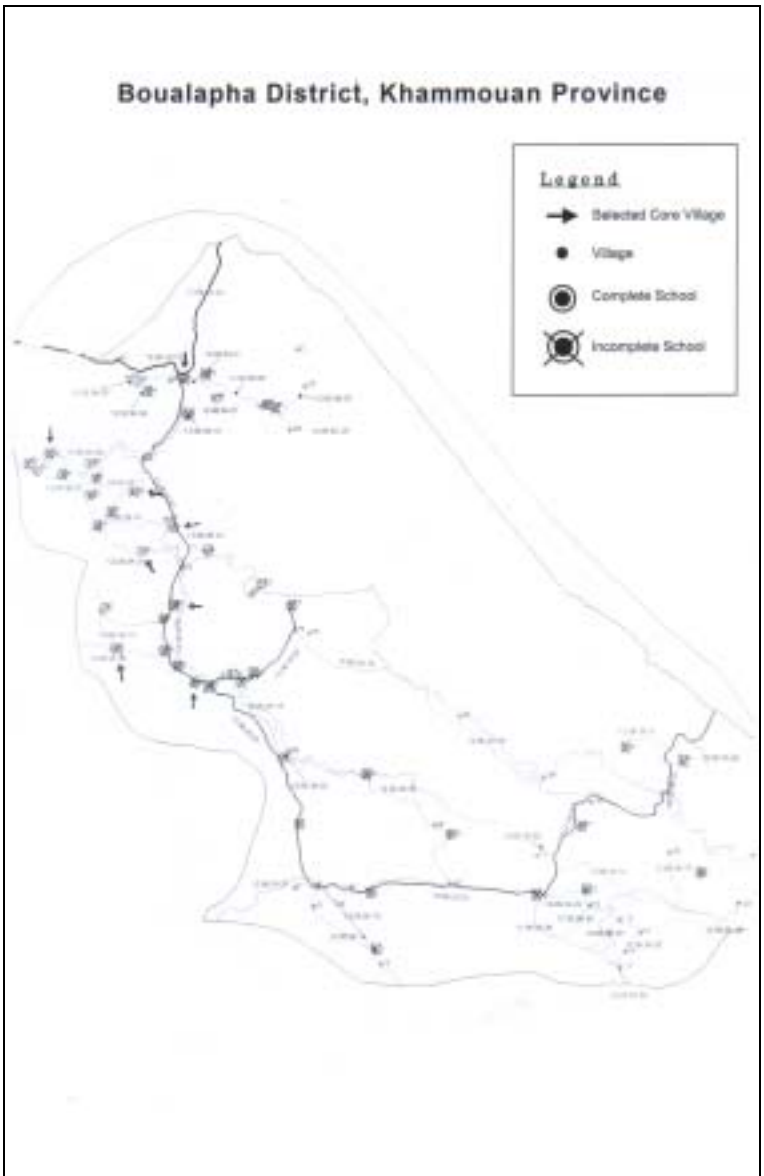
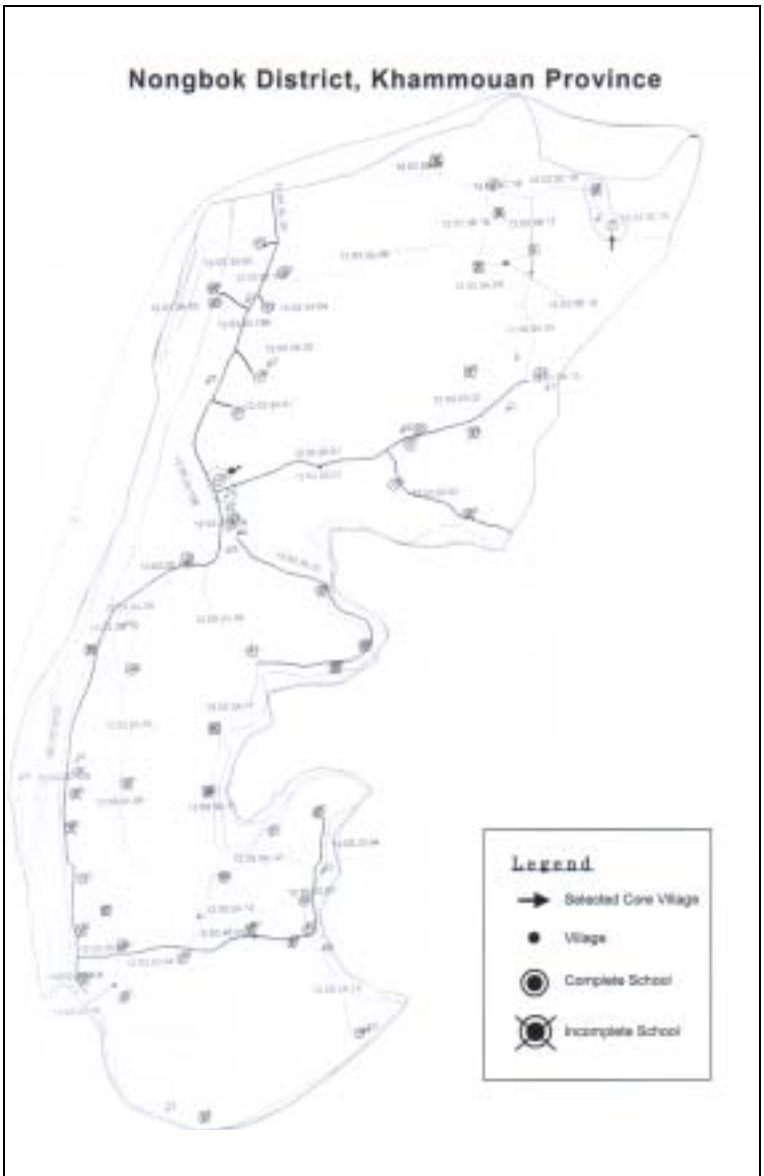




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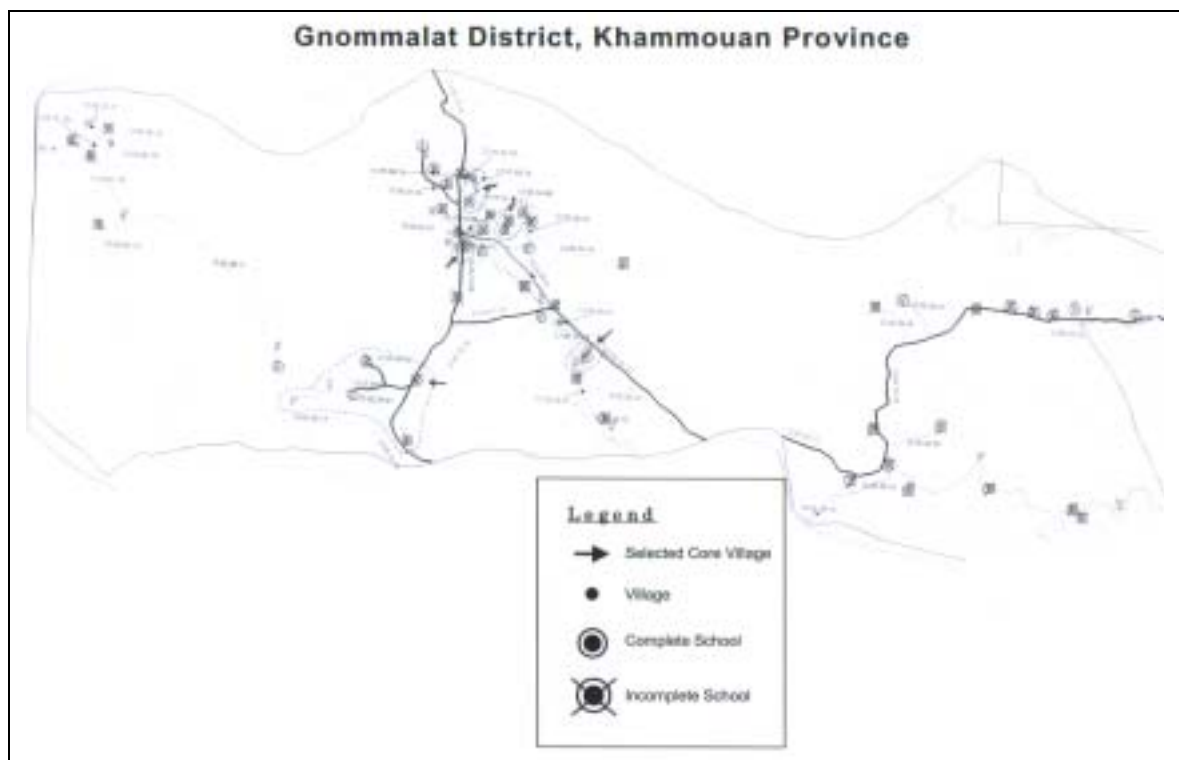
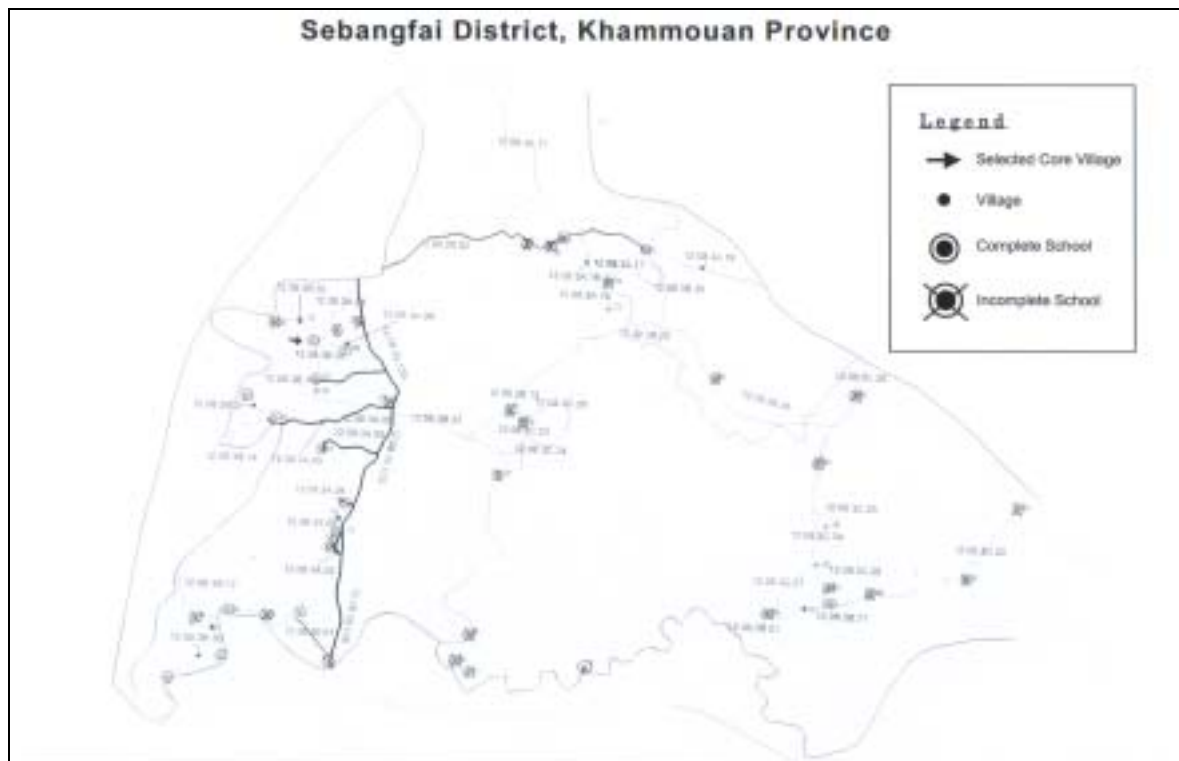
Primary Education Expansion





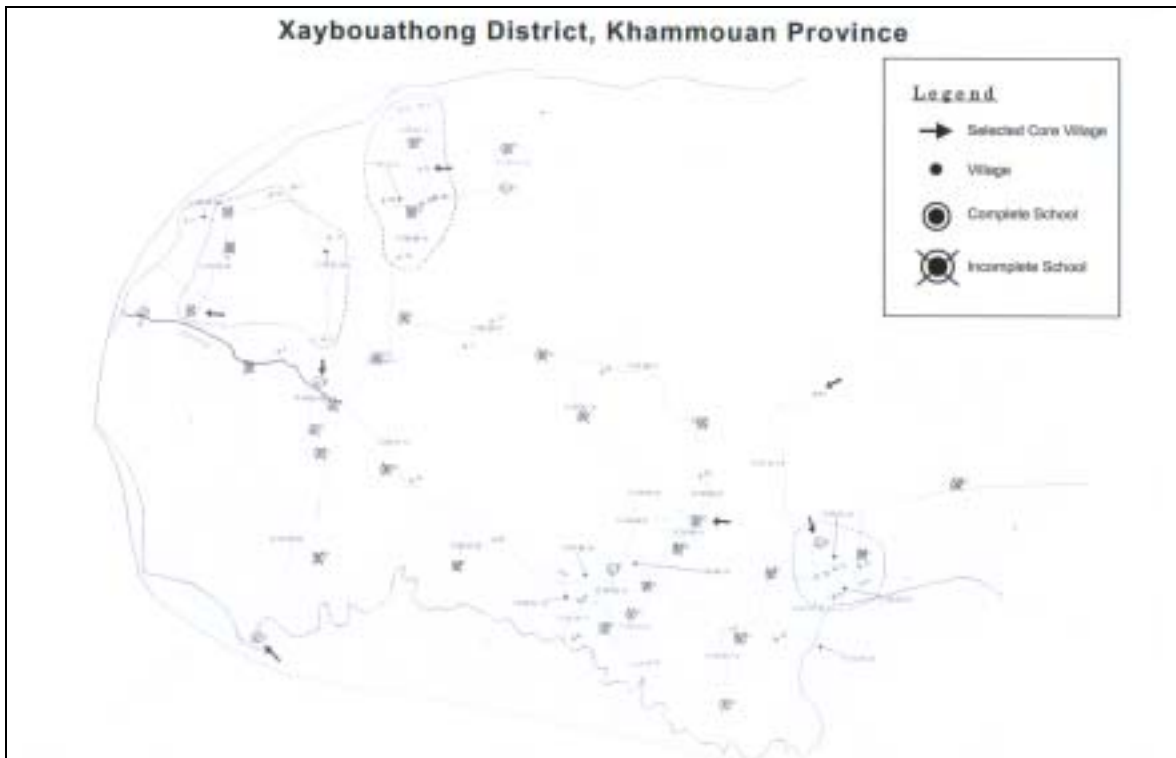
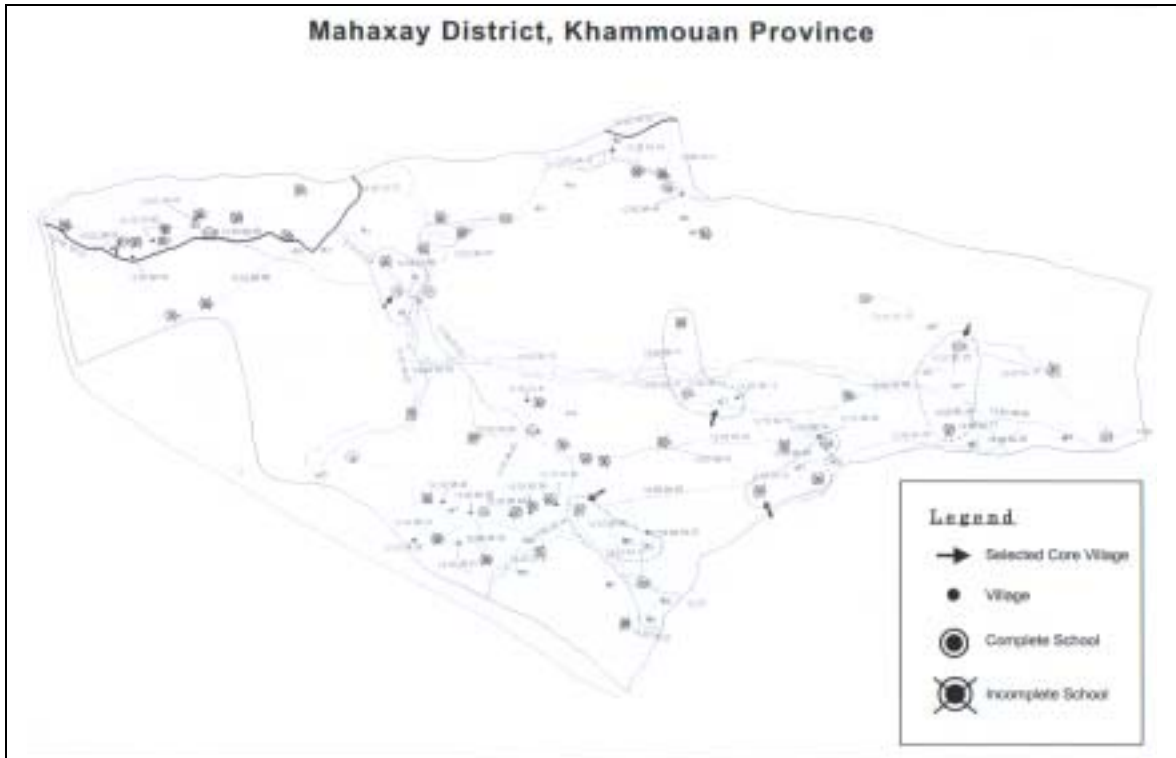
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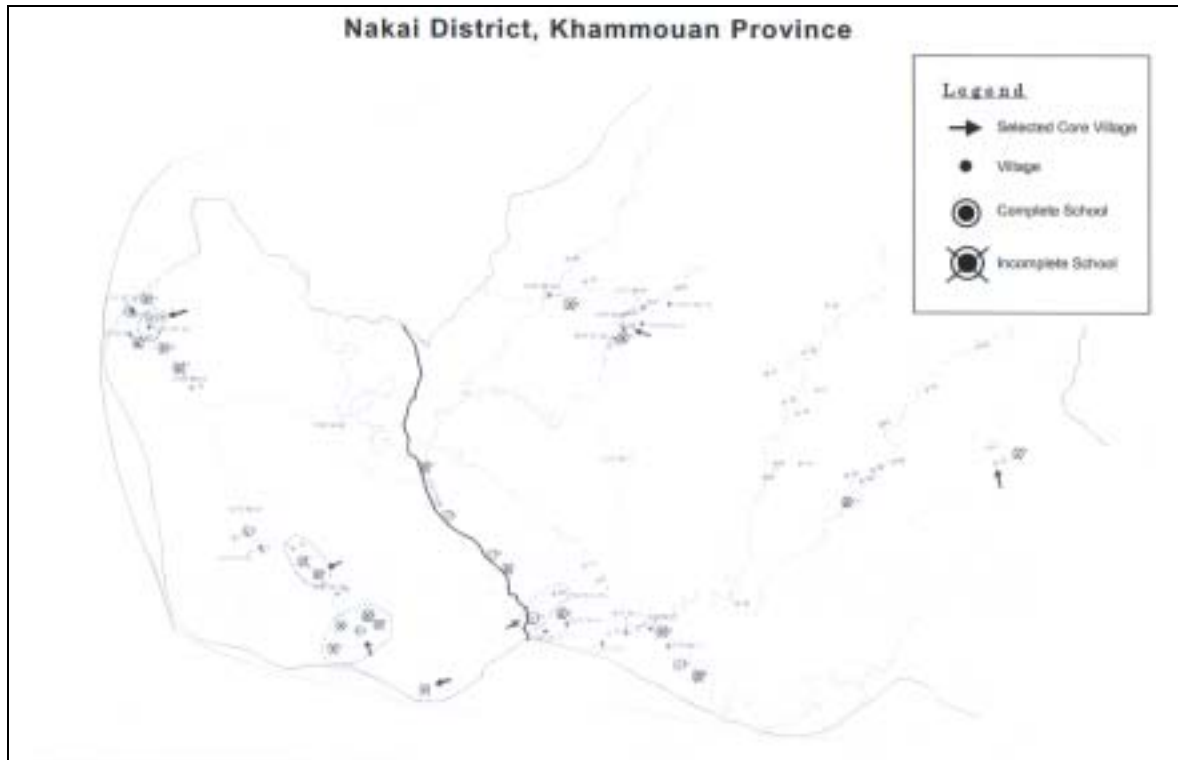
Primary Education Expansion



Primary Education Expansion

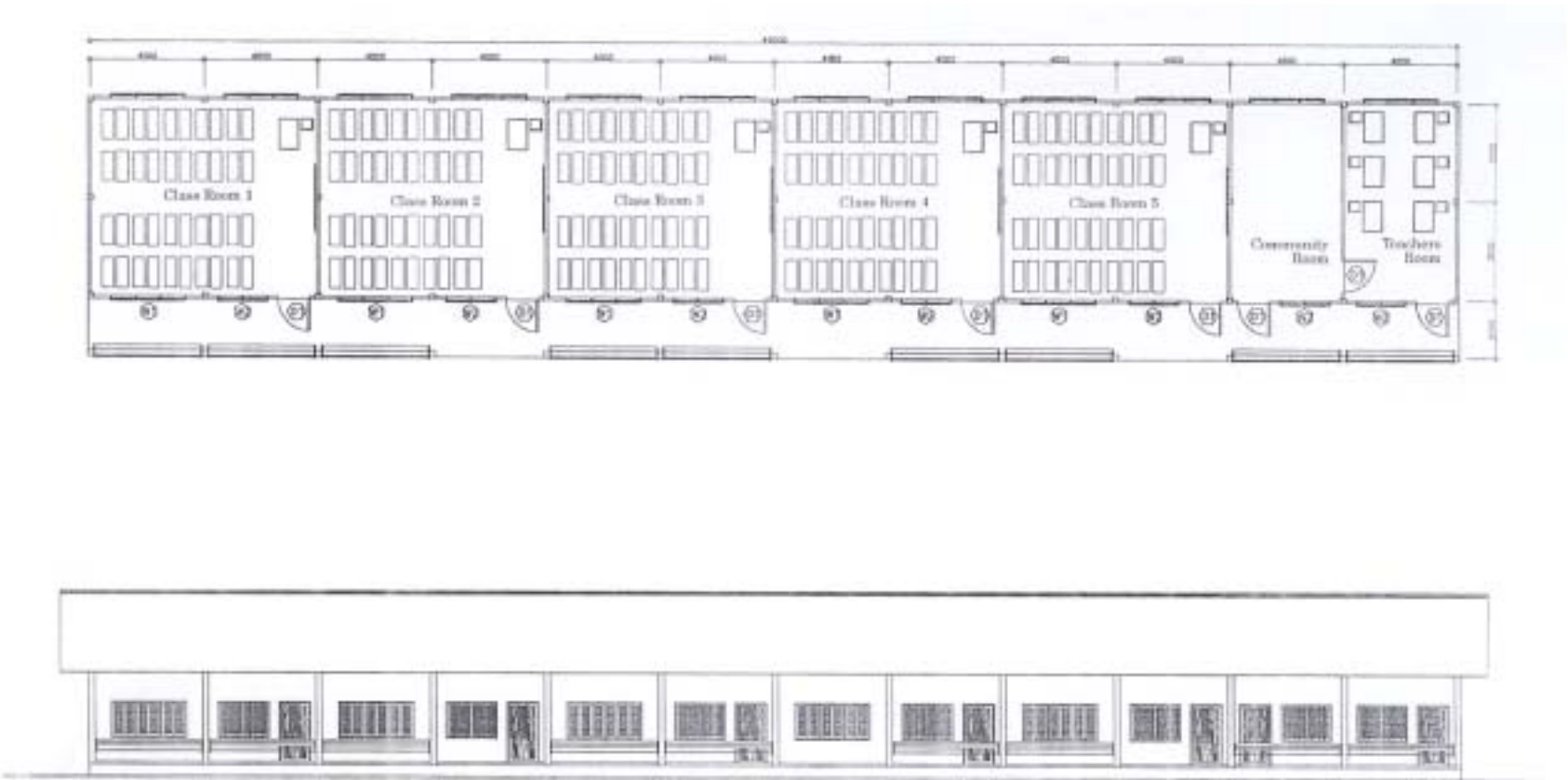
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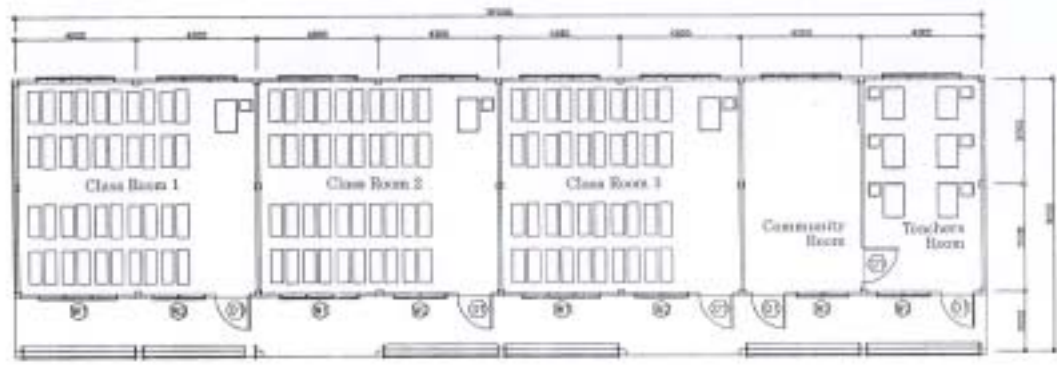


Primary Education Expansion

Attachment IV

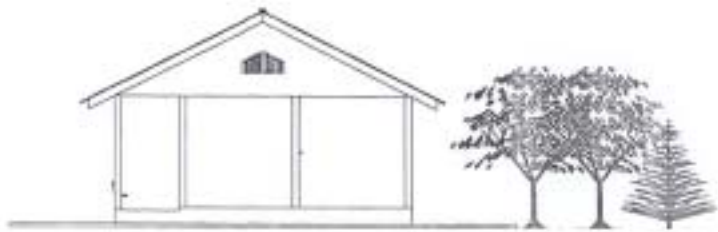
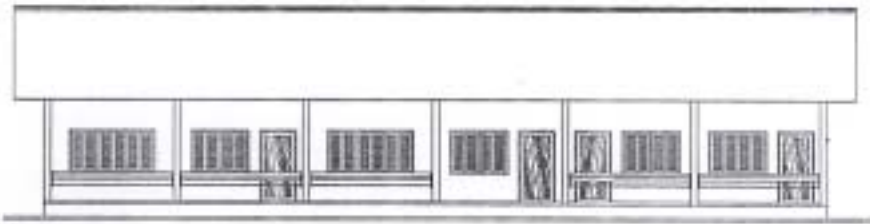
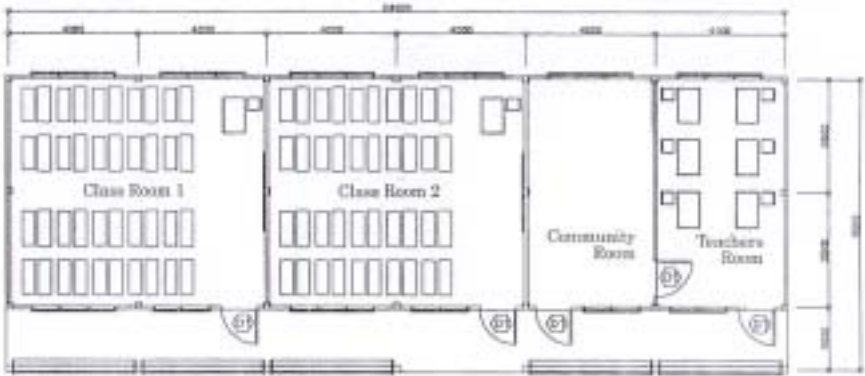


Layout of Primary School Building (Type 1)



RIGHT ELEVATION

Layout of Primary School Building (Type 2)



FRONT ELEVATION

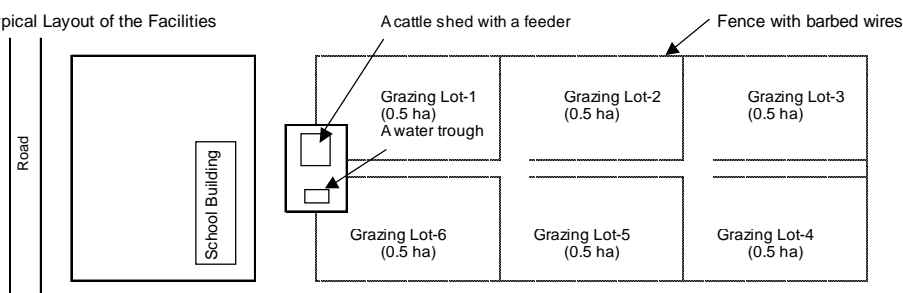
Layout of Primary School Building (Type 3)

Outline of Income-General Activities (1) Cattle Raising

1. Required Facilities

The grazing land attached to the school with a total of 3.0 ha is required for a cattle raising unit, which consists of 5 heads of cows and one bull. The grazing land will be fenced around with paling and barbed wires. Logs for the paling will be collected, contributed and set up by the community and barbed wires are to be provided by the Project. The 3.0 ha of grazing land will be divided into six lots to be rotated for effective use of the grass. One water trough is required to supply drinking water to the cattle. One proposed shallow well for domestic purpose of the school will be a water source for this water trough as well. A cattle shed with a feeder is proposed near the water trough for a rest of the animals during the night, where animal health control as well as collecting animal manures are to be undertaken. The proposed cattle shed is very simple one, equipped with grass or galvanized iron roofs, and an earth floor and all of the sides open.

2. Typical Layout of the Facilities



3. Management

Farmers have raised cattle in an extensive manner until now, benefited from natural resources in the forest and by using such farm by-products as rice straw and maize stalk. Thus the actual costs for cattle raising are currently small. However, in the long run, semi-intensive raising system with improved pasture should be applied to increase the number of cattle in view of feed nutrient and limited expandable area. In the initial period, the proposed grazing land attached to the primary school may be natural forest or natural grass land, which should be fenced around. The cattle will feed by itself with natural leaves and grass in the wet season however, it should be additionally fed by cut and carry system, particularly in the dry season. The community and students have to bring some rice straw or other farm by-products to the school in rotation for feeding the cattle.

4. Cost

4.1 Investment Cost

(1) 5 cows (adult) + one bull (adult) = \$ 125 x 6 heads	= \$ 750
(2) One cattle shed with a feeder and a water trough (50 m ²)	= \$ 1,500
(3) Barbed wires (5 lines) with nails for 3.0 ha (6 lots) = \$ 0.15 x 4,000 m	= \$ 600
Total Investment Cost	= \$ 2,850

4.2 Operation & Maintenance Cost

Twice a year of vaccination are required for all the cattle to minimize the risk of animal disease. The cost for vaccination is estimated at \$ 0.25 per vaccine and \$ 10 per transportation and technical staffs expenditures, estimating at:

- 1st Year = 6 heads x \$ 0.25 x 2 times + \$ 20 = \$ 23.0 (say = \$ 30)
- 2nd Year = 9 heads x \$ 0.25 x 2 times + \$ 20 = \$ 24.5 (say = \$ 30)
- 3rd Year = 11 heads x \$ 0.25 x 2 times + \$ 20 = \$ 25.5 (say = \$ 30)
- 4th Year = 15 heads x \$ 0.25 x 2 times + \$ 20 = \$ 27.5 (say = \$ 30)
- 5th Year = 17 heads x \$ 0.25 x 2 times + \$ 20 = \$ 28.5 (say = \$ 30)

As for the maintenance cost of the facilities, 2 % of the initial cost \$ 42 (\$ 2,100 x 0.02) are applied annually.

5. Income:

Expected increase number of cattle with 5% of mortality and 60% of delivery rate:

- 1st Year = Cow (5) + Bull (1) = 6 heads
- 2nd Year = Cow (6) + Bull (2) = 9 heads
- 3rd Year = Cow (7) + Bull (4) = 11 heads
- 4th Year = Cow (9) + Bull (6) = 15 heads (including the delivery of the second generation)
- 5th Year = Cow (10) + Bull (7) = 17 heads (including the delivery of the second generation)

It is estimated that from 2nd Year 3 to 4 calves (2 cows and 2 bulls) will be increased year by year.

Selling of 4 heads of adult cattle can be possible annually from the 4th Year.

No revenue is expected from the cattle raising during the initial 3 years.

6. Income and Expenditure:

(unit: \$)						
Year	1st	2nd	3rd	4th	5th	after 5th
1) Income	0	0	0	500	500	500
2) Expenditure	51 ,*/	72	72	72	72	72
Balance	-51	-72	-72	428	428	428

Note: A half of the estimated maintenance cost was applied for the 1st year.

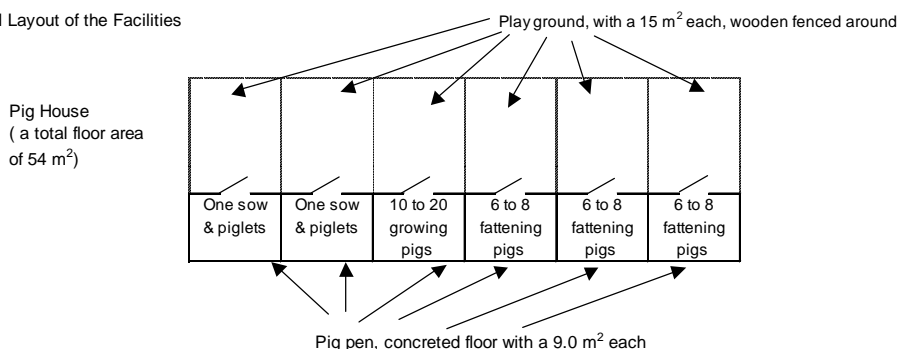
Outline of Income-General Activities (2)

Pig Raising

1. Required Facilities

A pig house with a total floor area of 54 m² and a play ground of 89 m² are proposed for pig raising. The pig pens' floor should be concreted to make the cleaning easier and to minimize the presence of parasites and diseases. A 3 m x 3 m pig pen can accommodate one sow and her piglets or 10 to 20 growing pigs or 6 to 8 fattening pigs. The pig house will be equipped with proper facilities such as feeders, drinking troughs and others. Feeders and water troughs are best made of concrete although other materials may be used. The water must be fresh and clean. One shallow well attached to the school will be a water source for this pig house. The play ground lots are attached to each pig pens, which are fenced around with wood. For the fencing of play ground, logs and timbers or any other locally available materials will be collected, contributed and set up by the community.

2. Typical Layout of the Facilities



3. Management

Pigs to be raised are native breeds fed mostly with corn, rice bran, cassava, kitchen wastes and other farm by-products to minimize the raising cost and to maximize the use of farm by-products. A pig needs 9 months to be adult (70 kg live-weight). Feed requirement for 9 months is estimated to be about 510 kg of agricultural products. For feeding pigs, the community and students have to bring some feed or other farm by-products to the school in rotation every day.

It is proposed that 2 sows are to be raised in this school pig farm. A sow will have 7 to 8 healthy piglets in a litter and two times of delivery are expected a year. Therefore, it is estimated that a total of 30 pigs can be sold for income generation. As for breeding, a male pig will be borrowed for mating from a pig raising farmer near by.

4. Cost

4.1 Investment Cost

(1) Two sows = \$ 100 x 2 heads	= \$ 200
(2) One pig house with feeders, drinking troughs (54 m ²)	= \$ 4,320
(3) Fences for the play ground of the pig house	= \$ 0 (Community's contribution)
Total Investment Cost	= \$ 4,520

4.2 Operation & Maintenance Cost

For feeding a pig to be 70 kg live-weight, it is estimated 510 kg of agricultural products costed at about \$ 25 in average. Practically, the feed will be brought to the school pig farm everyday by the community in rotation. Therefore, the cost for feeding can be shared or returned to the community after selling the products.

(1) Feeding Costs for 30 pigs' raising (for selling) = \$25 x 30 heads	= \$ 750
(2) Feeding Costs for 2 sows = \$ 50 x 2 heads	= \$ 100
(3) Breeding, Vaccination, etc. (5% of Income)	= \$ 90
(4) Maintenance of the facilities (2% of Initial Investment Cost)	= \$ 86
Total Operation and Maintenance Cost	= \$ 1,026

5. Income:

It is estimated that 30 pigs with 70 kg live-weight will be produced every year, the farmgate price of which can be \$ 60 per head. Therefore, it is assumed that an amount of \$ 1,800 (= \$ 60 x 30 heads) be annual gross income to the school pig farm.

6. Income and Expenditure:

	(unit: \$)					
Year	1st	2nd	3rd	4th	5th	after 5th
1) Income	900 ,*/	1,800	1,800	1,800	1,800	1,800
2) Expenditure	513 ,*/	1,026	1,026	1,026	1,026	1,026
Balance	387	774	774	774	774	774

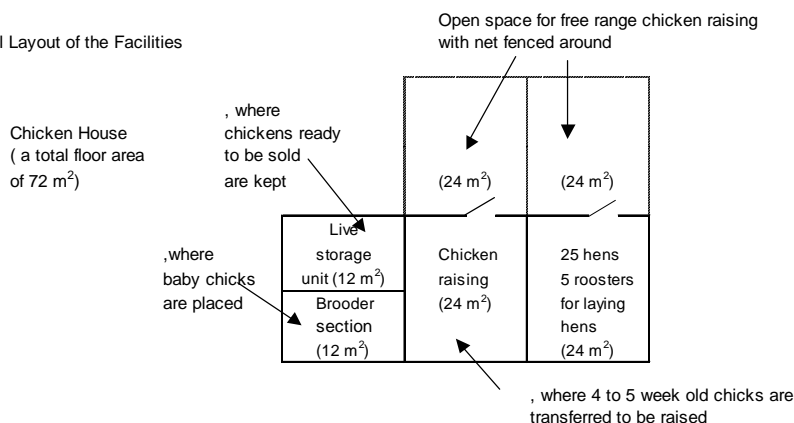
Note: A half of the estimated income and expenditure was applied for the 1st year.

Outline of Income-General Activities (3) Chicken Raising

1. Required Facilities

A chicken house with a total floor area of 72 m² and a play ground of 48 m² are proposed for the chicken raising. The chicken house should be built on porous soil and on a gently sloping terrain for good drainage. The shed type roof is ideal for a one-story chicken house with some or all of the sides open. The number of chickens to be placed in each floor depends on the age of chicks. About 0.4 m² to 0.9 m² of floor space for each chicken is required to avoid overcrowding. It is proposed that only locally available materials should be used for chicken houses' construction. Feeders and water troughs are to be provided made of local materials. The water must be fresh and clean. One proposed shallow well for domestic purpose of the school will be a water source for this pig house, too. Since it is expected that free range native chickens are promising animals not only for domestic market but for exports, an open space should be attached to the proposed chicken house, which is fenced around with wire netting.

2. Typical Layout of the Facilities



3. Management

Thirty chickens, 25 hens and 5 roosters will be raised as a raising unit of free range system. A native chicken needs 4 to 5 months to be adult (1.2 kg live-weight). Feed requirement for 5 months is estimated to be about 7.4 kg of agricultural products such as maize, rice bran and other farm by-products. With 25 hens, normal yield of 5 large-size eggs daily and 250 chickens each year are expected for income generation of this chicken farm. For feeding chickens, the community and students have to bring some feeds or other farm by-products to the school in rotation every day.

4. Cost

4.1 Investment Cost

(1) 25 hens and 5 roosters = \$ 5 x 30 heads	= \$ 150
(2) One chicken house (72 m ²)	= \$ 2,160
(3) Wire netting for fencing of the playground (78 m ²)	= \$ 130
Total Investment Cost	= \$ 2,440

4.2 Operation & Maintenance Cost

For feeding a chicken to be 1.2 kg live-weight, it is estimated 7.4 kg of agricultural products costed at about \$ 0.3 in average. Practically, the feed will be brought to the school chicken farm everyday by the community in rotation. Therefore, the cost for feeding can be shared or returned to the community after selling the products.

(1) Feeding Costs for 250 chickens raising (for selling) = \$ 0.3 x 250 heads	= \$ 75
(2) Feeding Costs for 30 chickens raising (initial adults) = \$ 0.8 x 30 heads	= \$ 24
(3) Breeding, Vaccination, etc. (5% of Income)	= \$ 20
(4) Maintenance of the facilities (2% of Initial Investment Cost)	= \$ 50
Total Operation and Maintenance Cost	= \$ 169

5. Income:

It is estimated that 250 chickens with 1.2 kg live-weight will be produced every year, the farmgate price of which can be \$ 1.4 per head. In addition, 5 large-size eggs can be produced daily, 1,800 eggs a year. Therefore, it is assumed that an amount of \$ 404 (= \$ 1.4 x 250 heads + \$ 0.3 x 1,800 eggs) be annual gross income of the school pig farm.

6. Income and Expenditure:

Year	(unit: \$)					
	1st	2nd	3rd	4th	5th	after 5th
1) Income	202 ,*/	404	404	404	404	404
2) Expenditure	84 ,*/	169	169	169	169	169
Balance	118	235	235	235	235	235

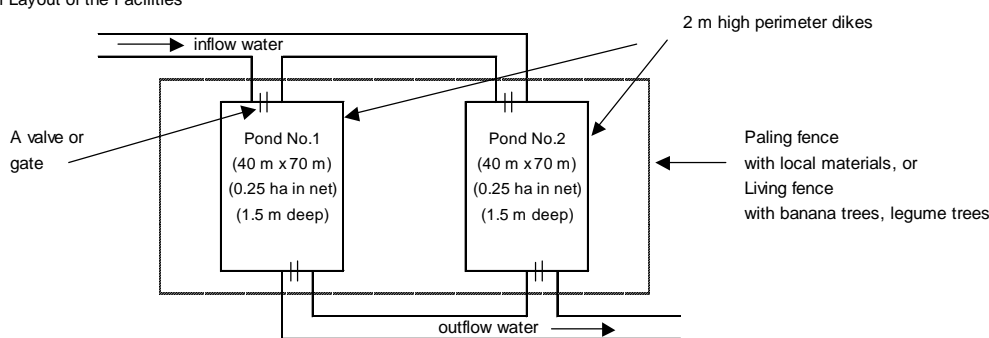
Note: A half of the estimated income and expenditure was applied for the 1st year.

Outline of Income-General Activities (4) Fishculture

1. Required Facilities

Two fishponds with a total area of 0.25 ha in net (40 m x 70 m) each are proposed for fishculture attached to the school. The location of the pond should be carefully determined, since it is important to have clean flowing water to irrigate the pond. Flowing water prevents the breeding of bacteria that attack the fish. If flowing water is not available and the pond is supplied with water from a motorized pump, it must be assured that the water is changed from time to time. The proposed pond is the dug-out excavated type with a depth of 1 to 1.5 m. Two meter high perimeter dikes around the pond will be constructed using the soil removed from the excavation. The inner sides of the pond will be firmed up by pressing with a board or heavy log. Two pipes or small canals with a control valve or gate each are to be installed at the opposite sites, one of which serves as the inlet pipe where water comes in and the other serves as overflow where water comes out. The fishpond will be fenced around with paling and any available local materials. Living fence of legume trees or fruit trees such as banana, papaya and coconut is also desirable in terms of integrated farming.

2. Typical Layout of the Facilities



3. Management

Integrated system using self farm products of maize, rice bran and chicken manures for fertilizing aqua plants is proposed to minimize raising cost and to minimize the use of farm by-products. Low cost inputs are proposed so that farmers can realize this program by themselves. Feeding fish is normally done by providing chicken manure, which also fertilize aqua plants in the fishpond. Supplemental feeding is only necessary for two weeks before harvest to fatten the stock and to improve its taste. A total of 5,000 fingerlings with a size of 5 to 10 cm, about 1 month age is required for 0.5 ha pond. If such size of 5 to 10 cm of fingerling is not available, about 1 week age of fingerlings with a size of 2 to 3 cm will be reared in a nursery pond or in a caging net in the rearing pond. When the fingerlings reach a length of about 5 to 7 cm, they are transferred from the nursery or caging net to the rearing pond.

4. Cost

4.1 Investment Cost

(1) Construction of fishpond (0.25 ha x 2 ponds)	= \$ 2,200
(2) Materials for a caging net (\$ 1.0/m x 80 m = \$80) (w=0.9 m)	= \$ 80
(3) Fence (paling fence or living fence)	= \$ 0 (Community's contribution)
(4) Initial 5,000 fingerlings	= \$ 286
Total Investment Cost	= \$ 2,566

4.2 Operation & Maintenance Cost

Since feeding fish is normally done by providing chicken manure, the cost of which is minimal. Only the cost for supplemental feeding before harvest to fatten the stock. The estimated operation and maintenance cost is:

(1) Supplemental feeding cost for 3,250 fishes (65% of mortality)	= \$ 10
(2) Maintenance of the facilities (2% of Initial Investment Cost)	= \$ 46
Total Operation and Maintenance Cost	= \$ 56

5. Income:

It is estimated that the live-weight of each fish will be increased to 500 g per fish with about 65% of mortality. Thus, the total annual production of fish from these two fish ponds (a total of 0.5 ha in net) is estimated to be 1,625 kg. Based on \$ 0.42 per kg of the fresh fish farmgate price, the annual gross income can be estimated at \$ 682.

6. Income and Expenditure:

Year	(unit: \$)					
	1st	2nd	3rd	4th	5th	after 5th
1) Income	341 ,*/	682	682	682	682	682
2) Expenditure	28 ,*/	56	56	56	56	56
Balance	313	626	626	626	626	626

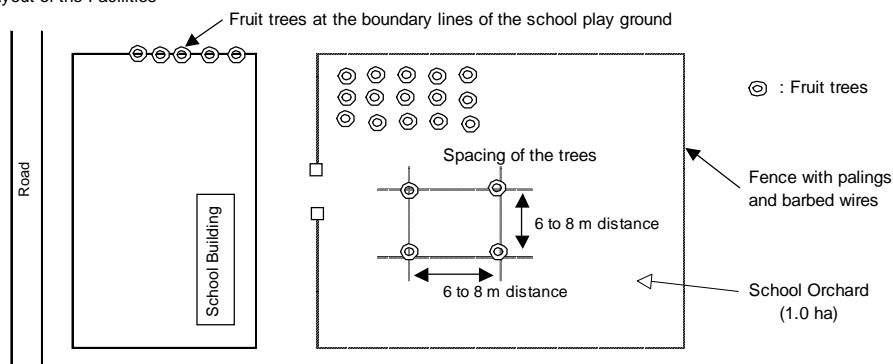
Note: A half of the estimated income and expenditure was applied for the 1st year.

Outline of Income-General Activities (5) Fruit Tree Planting

1. Required Facilities

Fruit trees such as mango, rambutan, tamarind, jack fruits and longan are proposed for fruit tree planting attached to the school. For newly opened lands, clearing should be done and rotten tree stumps should be removed before planting. Any specific facilities are required for fruit tree planting, however it is more desirable if irrigation water is available. Fruit tree seedlings will be planted at the back yard of the school as a school orchard or at the boundary lines of the school playground as well. One proposed shallow well for domestic purpose of the school will be a water source for the back yard orchard and the fruit trees at the boundary lines of the school playground, as well. The proposed school orchard will be fenced around with paling and barbed wires. Logs for the paling will be collected, contributed and set up by the community and barbed wires are to be provided by the Project. As for the fruit trees planted along the boundary lines of the school, each seedling or young tree will be fenced by bamboo or any available local materials to protect from animal attack.

2. Typical Layout of the Facilities



3. Management

The land should be thoroughly prepared during the dry season. The field is staked at 6 to 8 m by 6 to 8 m for a total of 150 to 250 plants per ha. Planting should end at the start of the rainy season. If the orchard is level or gently rolling, intercrop the fruit trees with other plants during the early, non-fruit-bearing stage of the trees to derive added income. Vegetables and field crops like rice, corn, beans and others are common intercrops. On the other hand, when the orchard is hilly, cover cropping may be done. Leguminous crops not only prevent soil erosion but also the growth of weeds. During the first dry season, the young trees should be watered as frequently as possible. Mature fruit trees no longer need irrigation in subsequent dry season except after the blooming period to enhance the next season's yield. Pruning should also be done occasionally during the rainy season. At least, organic manures of 5 tons in every 5 years are required to maintain the humus level of the soil.

4. Cost

4.1 Investment Cost

(1) Clearing the land (1.0 ha) = \$ 0.07/m ² x 1,000 m ²	= \$	700
(2) Barbed wires (5 lines) with nails for 1.0 ha = \$0.15 x 4,000 m	= \$	600
(3) Logs for the paling for fencing	= \$	0 (Community's contribution)
(4) Digging holes and tree planting (labor)	= \$	0 (Community's contribution)
(5) Fence for the trees at the boundary lines of the school (bamboo)	= \$	0 (Community's contribution)
(6) 250 seedlings (\$ 1.5 x 250 trees)	= \$	375
Total Investment Cost	= \$	1,675

4.2 Operation & Maintenance Cost

Since fertilizing is normally done by providing organic manure, the cost of which is minimal.

A 10% of the gross income for tools, fencing materials and transportation, etc. is considered as the operation and maintenance cost for this program, estimated at \$ 42 per year.

5. Income:

Estimated yield of 3.0 tons/ha for fruit trees such as mango, rambutan and longan seems to be conservative but reasonable under practical application of organic manures such as farmyard manure, animal manures and legume cover crops.

Since the farmgate prices for those fruit crops vary seasonally and according to the locations, an average farmgate price of \$ 0.15 per kg, thus \$ 428 of annual gross income was applied for the estimation of the farm economy.

Due to small input cost, such fruit tree planting seems to be profitable, but it needs 4 to 5 years until their first production and 7 to 10 years for their full production.

Therefore, for the initial period with no income from fruit trees, the community should earn some income from other sources to sustain the proposed income generating activities.

6. Income and Expenditure:

Year	(unit: \$)										
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th~
1) Income	0	0	0	0	214	256	300	342	385	428	428
2) Expenditure	21	21	21	21	42	42	42	42	42	42	42
Balance	-21	-21	-21	-21	172	214	258	300	343	386	386


Note: A half of the estimated maintenance cost was applied for the 1st to 4th years.

Primary Education Expansion

Attachment VI


**Income-Generating Activities
(Savannakhet Province)**

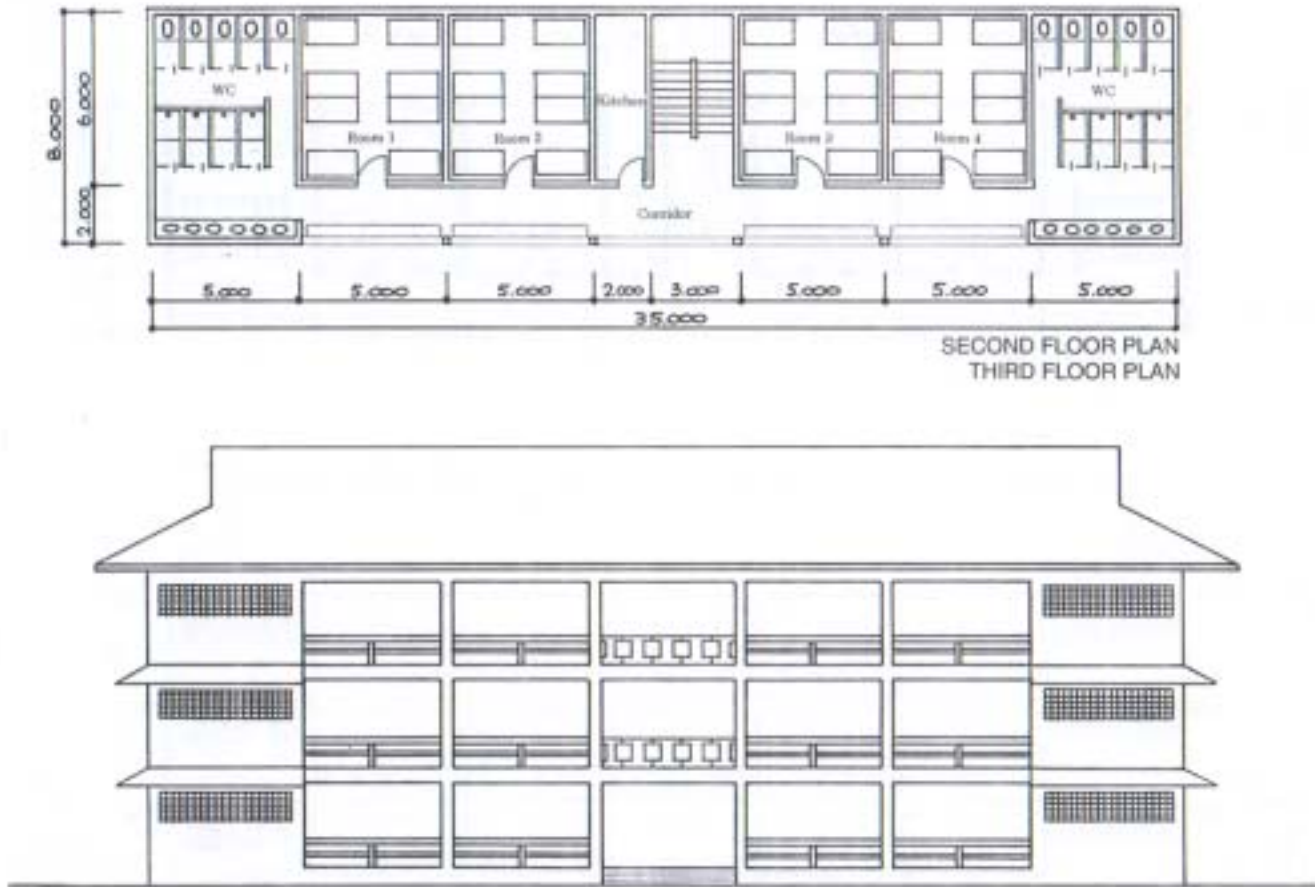
No.	District	Name of village	No. on Map	Incoming-generating Activities						
				Cattle	Pig	Chicken	Fruit Tree	Fish Culture	Industrial Tree	Vegetable
1	Khanthabouly	Phon sim neua	63					*		*
2		Sa phan neua	1		*	*	*	*		*
3	Outhoomphone	Nong pene	64				*	*	*	
4		Phin kang	98			*				
5		Non sa wang	101				*	*		*
6	Atsaphangthong	Na lai khonrk	26	*				*		*
7		Na phian	14	*	*	*		*		*
8	Phine	Dong khum	25				*	*		*
9		Kham sa-i	110	*	*	*	*	*	*	*
10		A-louay may	27						*	
11		Jutsum Sai po vien	n.a.					*		
12	Sepone	Sai som boun	91	*	*	*	*		*	*
13		Nonh sai	106		*	*	*	*	*	*
14		Houaysane	111	*			*	*		
15		Vong vi lay	2	*	*	*	*	*	*	*
16		Nabo	9			*	*	*	*	*
17		Muang chanh	16	*			*	*	*	*
18	Phone hai	11				*	*	*	*	
19	Nong	Nong vi lay	28		*	*	*	*		*
20		Kai Sone	24				*			*
21		Dong na sane	50	*	*	*	*	*	*	*
22		A-pork	45			*	*	*	*	*
23		A-lau phor	38					*	*	*
24	Thapangthong	Boudtaphane	19				*	*	*	
25		Hintang khang	52			*	*	*		*
26		Napasath	15		*		*	*	*	
27	Nonchanh	35				*	*	*	*	
28	Songkhone	Thong si meuang	116	*	*	*	*	*	*	*
29		Ma lay thong	49			*	*	*		*
30	Champhone	Na teuy	1					*	*	
31		Kham noy	111	*	*	*	*			*
32		Ta lea may	146				*	*		*
33	Xonnabuly	Nong pham	1					*		
34		Toum gnae	3					*		
35	Ka bao	21					*			
36	Xaybuly	Tha kham	19				*	*	*	*
37		Dong phung	9					*	*	*
38	Vilabuly	Na gnom neua	67				*	*	*	*
39		Sa lo	83			*	*	*		
40		Nam khip	96			*	*	*	*	
41		Na phi hang	42		*	*	*	*		
42		Keng lek	73		*	*	*	*		
43	Atsaphone	Kouad hine	92		*	*	*	*		*
44		Pho say	33			*	*	*	*	
45		Wang hai	9		*	*	*	*	*	*
46	Xayphouthong	Na kham	16		*	*	*	*		*
47		Nam phu	39		*	*	*	*	*	*
48	Phalanxay	Pha lane kang	12	*	*	*	*			*
49		Na kea	61		*	*	*		*	*
50		Pha lane tai	1	*	*	*	*			*

*  : Decided income-generating activity

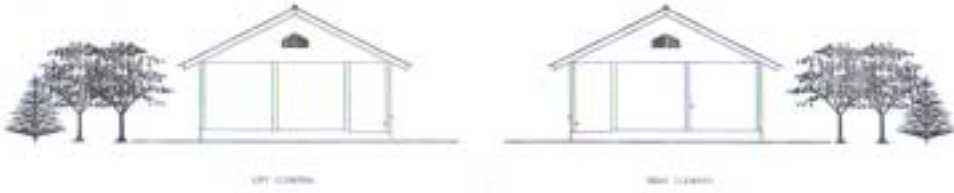
Income-Generating Activities (Khammouan Province)

No.	District	Name of village	No. on Map	Income-generating Activities						
				Cattle	Pig	checken	Fruit Tree	Fish Culture	Industrial Tree	Vegetable
1	Thakek	Dalasang	69							
2		Namouang	46							
3	Hinboon	Tha Na Neua	45							
4		Bong	63							
5		Mouang Khai Tai	74							
6		Sao	79							
7		Phonh Kham	107							
8		Phonh Sa Vanh	105							
9		Sa Ma Khi Xay	119							
10		Hinboon Neua	127							
11		Meng	155							
12		Vieng Thong	159							
13		Koup	6							
14		Na Than	88							
15		Nongbok	Dongkhang	30						
16	Phongkhiu		1							
17	Xebangfay	Kiose	?							
18		Sang	27							
19	Gnommlath	Thapha	32							
20		Phathoung	39							
21		Gnommalat tai	17							
22		Vatthad	2							
23		Sivilay	27							
24	Mahaxay	Phon Meuang	79							
25		Mahaxay	2							
26		Pa Nam	57							
27		Phon Na Dee	66							
28		Xang Phok	73							
29	Xaybuoathong	Pa Kouai Thong	3							
30		Na Noi Thong	29							
31		Phon Na Dee	42							
32		Thakok Khene	58							
33		Si Vi Lay	13							
34		Keng Chone	17							
35		Na Ka Thing	64							
36	Nakai	Thong	2							
37		Vang-giem	5							
38		Nahang	19							
39		Oudomsouak	22							
40		Phangdieng Tai	47							
41		Namie	65							
42	Song	9								
43	Boulapa	Lang Khang	47							
44		KaChan Noi	53							
45		Xouai	56							
46		Keng Vak	65							
47		Sa Ang	66							
48		Na Som Boun	68							
49		Na Pang	72							
50		Na Peng	82							

 : Decided income-generating activities



Layout of Savannakhet Teacher's College Expansion (Teacher's College Dormitory)



Layout of Savannakhet Teacher's College Expansion (Teacher's College Class Room)

Primary Education Expansion

Attachment VIII

Estimate Cost of Primary School Building Construction

Type 1 : 5 class room and 1 teacher room building (9m x 48m=432 m²)

ITEM	DESCRIPTION	AMOUNT (US Dollar)
1.A	Primary School Building	
	ERTHWORK	2,000
	CONCRETE STRUCTURE WORK	7,000
	MASONRY WORK	5,000
	ROOF STRUCTURE, ROOF COVERING	10,300
	WOOD WORK, DOOR AND WINDOWS	8,000
	PAINTING WORK	5,800
	OTHER WORKS (Flag Post etc.)	300
	TOTAL COST FOR Primary School Building	38,400
1.B	Furniture (Class room and Teachers room)	4,000
1.C	Sanitary building Type A : (6m x 2.3m=13.8 m ²)	3,000
1.D	Deep Well (35m Depth)	800
1.E	PRE CONSTRUCTION WORK AND MANAGEMENT (30%)	13,800
GRAND TOTAL (INCLUDE ALL TAX & OVERHED)		60,000

Type 2 : 3 class room and 1 teacher room building (9m x 32m=288 m²)

ITEM	DESCRIPTION	AMOUNT (US Dollar)
2.A	Primary School Building	
	I. ERTHWORK	1,400
	II. CONCRETE STRUCTURE WORK	5,000
	III. MASONRY WORK	3,600
	IV. ROOF STRUCTURE, ROOF COVERING	7,100
	V. WOOD WORK, DOOR AND WINDOWS	5,400
	VI. PAINTING WORK	4,000
	VII. OTHER WORKS (Flag Post etc.)	300
TOTAL COST FOR Primary School Building	26,800	
2.B	Furniture (Class room and Teachers room)	2,700
2.C	Sanitary building Type B : (2.5m x 3.2m=8 m ²)	2,000
2.D	Deep Well (35m Depth)	800
2.E	PRE CONSTRUCTION WORK AND MANAGEMENT (30%)	9,700
GRAND TOTAL (INCLUDE ALL TAX & OVERHED)		42,000

Attachment IV

Type 3 : 2 class room and 1 teacher room building (9m x 24m=216 m²)

ITEM	DESCRIPTION	AMOUNT (US Dollar)
3.A	Primary School Building	
	I. EARTHWORK	1,200
	II. CONCRETE STRUCTURE WORK	3,800
	III. MASONRY WORK	2,800
	IV. ROOF STRUCTURE, ROOF COVERING	5,500
	V. WOOD WORK, DOOR AND WINDOWS	4,200
	VI. PAINTING WORK	2,800
	VII. OTHER WORKS (Flag Post etc.)	300
	TOTAL COST FOR Primary School Building	20,600
3.B	Furniture (Class room and Teachers room)	2,000
3.C	Sanitary building Type B : (2.5m x 3.2m=8 m ²)	2,000
3.D	Deep Well (35m Depth)	800
3.E	PRE CONSTRUCTION WORK AND MANAGEMENT (30%)	7,600
	GRAND TOTAL (INCLUDE ALL TAX & OVERHED)	33,000

Attachment IX

Photographs



**Photo 1 School in Ban Kham sa-l
(Phine, Savannakhet)**



**Photo 2 School in Ban Dongnasane
(Nong, Savannakhet)**



Photo 3 Same as Poto 2



**Photo 4 School in Ban Thakham
(Xaybuly, Savannakhet)**



**Photo 5 Ban Thapha
(Gnommlath, Khammouan)**



**Photo 6 School in Ban Phathoung
(Gnommlath, Khammoan)**

Photographs



Photo 7 School in Ban Mahaxay (Mahaxay, Khammouan)



Photo 8 School in Ban Panam (Mahaxay, Khammouan)



Photo 9 School in Ban Pa kuai Thong (Xaybuoathong, Khammouan)



Photo 10 School in Ban Na peng (Boulapa, Khammouan)



Photo 11 Same as Photo 10



Photo 12 School in Ban Khai Tai (Hinboon, Khammouan)

Attachment IX

Photographs



Photo 13 Model School in Ban Pong
(Xaibuly, Savannakhet)



Photo 14 Same as Photo 7



Photo 15 Classroom in the Model School



Photo 16 Sick room in the Model School



Photo 17 Same as Photo 16



Photo 18 Mushroom Cultivation
As a school activity
(Dong heng, Savannakhet)

Photographs



Photo 19 Same as Photo 18



Photo 20 Multigrade class (G1-G3)
(Mahaxay, Khammouan)



Photo 21 Dug Well in a Village



Photo 22 New school provided by NGO
(Sepone, Savannakhet)



Photo 23 Same as Photo 22



Photo 24 New school under Construction,
donated by Japan's NGO
(Atsaphangthong, Savannakhet)