

## **ANNEX-D**

### **Participatory Approach and Result**

## **RRA Survey for Candidate Model Areas**

## **RRA STUDY OF SELECTED MODEL F/S AREAS**

### **1. Principle of the Rapid Rural Appraisal (RRA)**

RRA is an evolving tool for research methodology which is widely used to survey and analyze the present conditions, problem and constraints of rural area. The study team has utilized this study method to assess the situation of potential area for model development in order to select appropriate site for model F/S area.

The principle of the RRA is based on 2 main beliefs; the interdisciplinary approach and team work and the essential use of local knowledge.

#### *Interdisciplinary approach and team work*

The rural context of practicing farmers is complex. They have to deal not only with crops and crops conditions but also with many other variables that comprise the rural system. Therefore, given the overall complexity of the communal system it is seldom possible for a professional specializing in any single discipline to adequately understand all of the factors with that the farmers must contend to provide recommendations for improvements that are entirely appropriate and viable within the local context. In the course of this study the RRA involved interviews of farmers and local authorities by an interdisciplinary team of experts.

The interdisciplinary team comprised of;

- One agriculture economist,
- One irrigation engineer,
- One agronomist,
- One farmer supporting system specialist,
- One community development specialist, and
- One environmentalist,

GoL staff from MAF, PAFSO and DAFSO representing also the different disciplines such as irrigation, agriculture, livestock, community development and forestry also assisted the RRA team.

#### *Substantial use of local knowledge*

The RRA was carried out through semi-structured interview. Farmers' perceptions and understanding of the resource situation and problems was learned and comprehended. Possible solution to solve the problem was discussed with the farmer community in order to define viable appropriate alternatives to the local context. The intention was to get the expression of the extensive knowledge about the resource setting of the farmer community that will enable the selection of candidate model F/S areas.

## **2. RRA Methodology**

Based on the basic methodology of RRA the appraisal work consisted of 3 stages: (1) activities of preparatory or initiating nature at the start of the RRA; (2) activities that take place during field visits; and (3) activities necessary needed for the completion of the RRA study.

### *Preparatory work*

The preparatory work consisted of collecting and examination of all available relevant background information (published and unpublished reports, maps, aerial photographs, environmental and social data etc.). Those data were mostly collected and summarized during the first phase of the JICA study.

The RRA team used information collected with the village inventory at district level and with the result of the household survey undertaken in December 1998. The information provided from the interview of 96 villages was used as secondary data.

The preparatory work was extended to the district office (DAFSO) where more relevant background information was collected and the preparation for the field visit arranged jointly with the district authority.

### *Field visits*

Field visits are considered as the central work of the RRA. It was an intense field work exercise in the rural area. Due to the time constraints and due to difficulties to access certain area because of bad road conditions the team did not visited all villages in the potential area. However, in the villages which were not visited DAFSO staff later undertook the villages inventory.

The process of the field work undertaken by the team consisted of an interview with the village authorities and farmers. The village's chief and his deputies, representatives from LWU, Youth Union, Union for National Reconstruction, WUG's leaders and some farmers participated in the village interviews.

The aim of the village interview is to get the viewpoint of the village resource areas and the understanding of the resource situation and problems. An evaluation of the problems and the perception on how to solve the problems within the community were analyzed jointly with the village authorities and farmers.

After the village interview, the field-work pursued with a walk through the village and through the agriculture fields. During the walk through exercise the RRA team observed the present social and economical conditions of the village, farming practice, and the condition of the existing irrigation and rural infrastructures.

### *Completion of the RRA*

Throughout the course of the RRA, team members participated in discussion and analysis especially after each field visit. A final meeting at the Thakhek office in Khammouane was made in order to refine and to consolidate field notes. The result of the RRA was then recorded and summarized.

### **3. Selection criteria for model F/S area**

Model F/S area defined as demonstration or pilot area to implement the outcomes of the master plan. All stages of the development process in the area will be considered as the model for future agricultural and rural development in the area.

The selection process for the model F/S elaborated by the study team follows the development strategies of the master plan. Whereas, successful village and irrigation-based agricultural and rural development project depends largely on the needs of the farmer community and on the capacity of the farmer groups to bear the ownership of future infrastructure and system. Taking this into account the selection of model F/S was made on village basis.

The selection process followed the result of the farm household survey made during the first phase of the study project in December 1998. The selection of households was based on villages located in the study area. Criteria such as: village accessibility (road condition), flood problem, electricity, population density, district priority area for poverty eradication etc.

In total 96 villages were selected during the first phase of the JICA study. In those villages, DAFSO staff and others trained by the study team interviewed village authorities and farmers. The village inventory was designed by the principle of rapid rural appraisal (RRA) with the interview form 1 (village inventory) outlined according to RRA format.

In order to streamline the selection according to the concept of the master plan, the study team elaborated additional criteria for the selection of model areas as follows.

#### *Cross cutting criteria*

- High demand of the beneficiaries (farmers) for irrigation development
- Leadership of village chief and capacity of the local authority
- Dynamics and activity of the DAFSO staff in supporting farmers
- Size of the development area (100 ha to 300 ha)
- Number of villages covered by the project
- Accessibility to market (including middleman)
- Accessibility to APB credit
- Not benefited by other donors' project activities
- Poverty

*Specific criteria for each development model*

- Water resource management at micro basin level (where pumps were installed or installation is under plan)
- Flood hazard in wet season
- Availability of progressive farmers
- Availability of existing communal organization
- Activity of the communal organization
- Development of irrigation infrastructure and its development level
- Availability of cooperation among farmer groups in the river basin.

By considering the above criteria, with the close collaboration of PAFSO and DAFSO 14 areas were selected. During the course of the study, the study team made a visit to the potential areas. The conditions of the villages are given as follows.

Table 1: Potential area selected

Area	District	Village Name	Population			No. of H/H	Average H/H size	Rainfed Paddy	Irrigated Paddy
			Total	Male	Female				
Bolikhamsai									
1	Thaphabath	Pakthouay Neua	821	332	489	157	5.2	199	150
2	Bolikhhan	Don	615	309	306	103	6.0	27	7
3	Paksan	Thana	492	237	255	78	6.3	169	70
4	Pakkading	Thonghak	559	300	259	100	5.6	91	100
Khammouane									
5	Hinboun	Vang Khong	246	115	131	47	5.2	52	0
6	Thakhek	Nakaikhia	394	110	284	67	5.9	75	40
7		Banthork	178	84	94	32	5.6	15	0
8	Nongbok	Dongkasin	498	256	242	75	6.6	122	100
9	Sebangfai	Nhang Kham	1,184	586	598	219	5.4	337	53
Savannakhet									
10	Xaibouly	Gnangkham Neua	474	253	221	68	7.0		170
11	Khantabouly	Thahouaxang	583	311	272	107	5.4	96	20
12		Beungva Neua	720	363	357	142	5.1	104	50
13	Xaiphouthong	Phonthan	803	379	424	158	5.1	122	50
14	SongKhone	Donevay	566	274	292	106	5.3	193	0

#### 4. Model area selected for RRA.

By analyzing the situation and conditions of the 14 area as specified above the team selected 6 areas for conducting RRA in order to get more information about the present condition, problems, constraints and the real needs of the farmers.

The following schemes were selected for the RRA.

Table 1: Area selected for RRA

Area No.	Name and Location	Justification
1	Thana, Paksan Bolikhamsay	Good accessibility, flood, strong farmer organization. Model to be developed for small pump irrigation scheme managed by farmers.
2	Thonghak, Pakkading, Bolikhamsay	Good accessibility (in general), floods, strong farmer organization, poor farmers. Model to be developed for micro basin water management of small tributaries of Mekong river.
3	Vangkhong Hinboun Khammouane	Good accessibility, flood, strong farmer willingness, poor farmers. Model to be developed for small pumping scheme newly constructed by farmers.
4	Dongkasin Nongbok Khammouane	Good accessibility, flood, strong farmer organization, advanced water management technology Model to be developed for on-farm water management with pump scheme managed by farmers.
5	Bungwa Khanthabury Savannakhet	Good accessibility, flood, strong farmer willingness, good market potential Model to be developed for micro water resource basin management in wet land area and for development of marketable crops
6	Phonthan Xaiphouthong Savannakhet	Good accessibility, strong farmer organization, Model to be developed for communal gravity irrigation management that include management of watershed area by farmers.

## **5. Summary of area situation and conditions**

By summarizing the finding of the RRA team, a rural activity profile of the area was elaborated to define and outline the profile of rural activity and farming practice of the wet and dry season as well as the potential problems that are present in the areas studied under the RRA.

The area studied by the team is divided into twelve sub-areas as follows;

- River (Mekong or tributaries),
- Wet land / swamp area,
- Small natural pond,
- Irrigation reservoir,
- Lower paddy field (with severe flood but with potential for irrigation),
- Lower paddy field (with severe flood but with limited potential for irrigation),
- Upper paddy field (with less flood and with potential for irrigation),
- Upper paddy field (with no potential for irrigation),
- River bank land (around Mekong tributaries),
- Village household area with home garden,
- Up land area, and
- Forest area.

The team made some observation and suggested possible potential development for each sub-area. Those sub-areas generally represent the overall aspect and condition of the 6 area selected and studied by the team. The observation and suggestion are summarized in the tables and transections figures as follows.

The RRA situation report of the areas studied is attached as per annex 1.



**TABLE 2: RURAL ACTIVITY PROFILE AND POTENTIAL DEVELOPMENT OF THE RRA STUDY AREA**

Area type	Name & Description	Activity dry season	Activity wet season	Major problems In F/S area	Observation	Potential development
1	River (Mekong or tributaries)	Fish catching	Fish catching	Aquatic resource deteriorate, fish population is decreasing. During the dry season in some of the tributaries there is not enough water due to uncontrolled water resource utilization. There is water resource conflict between up-stream and down stream stake holders.	Fish catching is an important source of food and income but fishing is not controlled. Irrigation development is not considering the availability of water resource. There is no water right regulation and no fishing right, no control of fishing method.	The Mekong and its tributaries have enough water resource to develop irrigation. In the tributaries where water is lacking in the dry season a water resource management system of the tributaries (basin wide) could be developed
2	Wet land / swamp area	Paddy, maize, beans, cucumbers, vegetable irrigated with small pumps Natural fish and shrimps catching	Area flooded No crop Fish catching	Aquatic resource deteriorate During the dry season there is limited water and there is not enough water to irrigate paddy and crop land. There is conflict on water between up stream and down stream stake holders.	There is also no water resource management within the streams and canals forming the wet land. No regulation for fish catching.	The wet land is a source of food for the people living in the community. Conservation of the wet land's fauna, flora and aquatic resource is very important to preserve the environment a wet land water resource management system could be developed.
3	Small natural pond	Papaya, Banana, Maize, beans, cucumbers, vegetable irrigated with small pumps Natural fish and shrimps catching Chicken and poultry	Area flooded Fish catching	Population of fish is decreasing There is not enough water	The farmers are cropping around the water resource. Most of the production is for home consumption. There is also extension of the home garden in this area and free access to fishing	Development of integrated farming with fish culture and poultry

4	Irrigation reservoir	Fish and shrimp catching No fish culture	Fish and shrimp catching No fish culture	Fish and other aquatic resource are diminishing. There is not enough water storage during dry season	There is no regulated fishing because people consider the reservoir as public. Almost reservoirs are in poor conditions and have no water management structure to efficiently stock and manage water during both dry and wet seasons.	Improvement of reservoir infrastructure. Development of communal reservoir management Development of communal fish and shrimp culture
5	Lower paddy field area (with severe flood but with potential irrigation)	Irrigated paddy In non irrigated area it is grazing land for cattle.	Rainfed paddy In some area there is no cropping due to flooding	Severe flood from August to September. In case of flood there is no yield. Not enough irrigation water Low yield 2 T/ha in W/S and 4 T/ha in D/S Plant disease Labor shortage in D/S	The soil is apt to be eroded due to the flood. Farmers are practicing traditional wet season paddy cultivation with high risk of flood so there is little investment. In some area farmers are doing direct sowing during W/S. Flood season is not avoided even with irrigation. There is also limited use of fertilizer and pesticide for both W/S and D/S due to high cost of production and lack of credit. In almost area the government provided irrigation pump station up to the head work. Canals and structure were dug and constructed by the farmers. Because there is no proper irrigation canal there is a lot	Upgrading of irrigation canal and structure. Development of appropriate water management system by WUG. Improvement of rainfed paddy production during W/S by the introduction of double irrigated cropping (avoiding flood) and direct sowing. Improvement of irrigated paddy production. Introduction of integrated farming. Development of WUG Development of farmer production group (FPG) Development of Credit Group.

					of water losses due to seepage and improper water management. During the D/S there is labor migration to town.	
6	Lower paddy field (with severe flood but with limited potential for irrigation)	Paddy, maize, beans, cucumber, vegetable with micro irrigation (small pumps)	Area flooded No crops Fish and shrimp catching	Flood from July to September Low yield for paddy Plant disease Not enough irrigation water	The area is located next to the swamp area. It is flooded during the wet season and is used as irrigated field during the dry season. Because of the lack of water conservation and management in the wet land there is not enough water to irrigate.	Development of cash crop production Development of integrated farming. Development of fish culture
7	Upper paddy field area (with less flood and with potential irrigated area)	Irrigated paddy In non irrigated area it is grazing land for cattle.	Rainfed paddy with or without supplementary irrigation.	Not enough irrigation water Low yield 2 T/ha in W/S and 4 T/ha in D/S Plant disease Labor shortage in D/S	This area could be located next to the irrigation reservoir and next to low paddy land. It is the most potential area for production because it is not subject to severe flood and because it has irrigation potential. Despite the favorable physical conditions the paddy yield is quite low for dry and wet season. The main reason is due to the poor condition of irrigation canals and to improper water management by the WUG.	Upgrading of irrigation canal and structure. Development of appropriate water management system by WUG. Improvement of rainfed and irrigated paddy production. Introduction of integrated farming. Development of WUG Development of farmer production group (FPG) Development of Credit Group.

8	Upper paddy field with no potential for irrigation	Grazing area for cattle	Rainfed paddy	Yield of paddy is low Plant disease	Traditional paddy production is practiced with limited application of fertilizer and pesticide	Improvement of rainfed paddy production.
9	River bank land (Mekong of tributaries)	Plantation of tobacco, maize, bean and vegetables during November to January. Small pumps irrigate some of the plots.	Area flooded	Intensive use of fertilizer causing health problem. Shortage of labor due to the shift to irrigated rice production.	Farmers have the tradition to grow crops on the river bank. The area has fertile soil that is providing low cost crop production. In some area contract farming is developed for tobacco. On the other hand production is for home consumption and trade between immediate villages of the community. Very little extension and credit is provided to the farmers in this area.	As there is a long tradition of river bank farming the farmers have developed many skills in growing vegetables and crops. Experience and skills from this area could be replicated in their irrigated field when new crops will be introduced to replace rice.
10	Village household area with home garden	Vegetable, banana, papaya, coconut, fruit tree, poultry, pigs	Vegetable, banana, papaya, coconut, fruit tree, poultry, pigs, cattle	Poultry and cattle disease Low off farm income Low hygiene and sanitation Low level of education Poor access road In some area no electricity No marketing structure	In almost all villages situated in the area there is poverty characterized by low income, insufficient food, poor nutritional status, poor rural infrastructure (road access and electricity), poor sanitation, insufficient information and various skills, lack of basic social service such as health and education.	Development of income generating activities Development of market structure Improve rural infrastructure (access road, electricity)

11	Up land area	Cattle grazing	Up land paddy and some crops (maize, pineapple and vegetable) Fuel wood	Low yield for crop Slash and burn cultivation	There is limited agriculture production activity. In some area community forestry is introduced	Community forestry for water shed protection and for the creation of long term communal resource funds. Promotion of cash crops during wet season if there is a market.
12	Forest area	Fuel wood and minor forest products	Bamboo shoot, rattan shoot, leafy vegetable, other minor forest product.	Forest coverage diminishes Watershed resources deteriorate	In some area shifting cultivation is practiced. The exploitation of the non-timber forest produce is not controlled. The forest forming the watershed area of the water resource area is not properly managed.	Development of communal forest conservation related to the storage of water resource for agriculture production.

FIG. 1: RURAL ACTIVITY PROFILE OF FEASIBILITY STUDY AREA

TYPICAL TRANSECTION OF VILLAGE IN F/S AREA (SAMPLE 1: Thanna, Thonhak, Vangkhong, Dongkasin)									
	RIVER < 1 >	RIVER BANK LAND < 9 >	LOWER PADDY FIELD < 5 >	UPPER PADDY FIELD < 7 >	VILLAGE AREA & HOME GARDEN < 10 >	NATURAL POND < 3 >	UPPER PADDY FIELD < 8 >	UP LAND < 11 >	FOREST < 12 >
WET SEASON	fishing	no crops	rice with or without supplementary irrigation	rice, maize, beans, cucumbers, vegetable w/o irrigation	vegetable, bananas coconuts poultry, pigs cattle	vegetable banana papaya fishing	rice, maize, beans cucumbers vegetable w/o irrigation	up land rice cattle grazing	bamboo shoots rattan shoots leafy vegetable other forest products fuel wood
DRY SEASON	fishing	maize beans vegetables tobacco	rice in irrigated area grazing area for cattle	rice, maize, beans cucumbers, vegetable in irrigated area grazing area for cattle	vegetable, bananas coconuts poultry, pigs	vegetable banana papaya fishing if water available	grazing land for cattle		fuel wood resin, bark other forest products
PROBLEM	aquatic resource deteriorate fish population is decreasing	flood from Aug. to Sep. rice have no yield if flood low yield 2 T/ha in W/S low yield 4 T/ha in D/S not enough irrigation water plant disease labor shortage in D/S	semi fertile soil, farmers are doing traditional rice farming with high risk. Flood season is not avoided even with irrigation limited use of fertilizer for both W/S and D/S due to high risk of flood, high cost of production and lack of credit. Also limited use of chemical and biological pesticide there is no irrigation canal so there is a lot of water losses due to seepage and bad water management there is labor migration to town during D/S	flood with less damage low yield 2 T/ha in W/S low yield 4 T/ha in D/S not enough irrig.. water plant disease	poultry and cattle disease low off farm income low sanitation poor access road in some area no electricity	fish population is decreasing	flood with less damage low yield 2 T/ha	low yield plant disease	forest coverage diminish watershed deteriorate
OBSERVATION	fish catching is an important source of income but fishing is not controlled	fertile soil low cost crop prod. limited use of fertilizer heavy use pesticide			there is limited veterinary activity very limited income generating activities (off farm) there is not enough hygiene limited toilet and bath room in some village there is poor access road trading of farm product is done through middle man and prices are not negotiable		part of the area is irrigated by small pumps in schemes that have enough water during the dry season.	limited agriculture production GoL is intro- ducing reducing community forestry	The forest are providing people with food, fuel wood and some minor non-timber forest product for sale. The exploitation of the resource is not controlled and tend to deteriorate.

FIG 2: RURAL ACTIVITY PROFILE OF FEASIBILITY STUDY AREA

TYPICAL TRANSECTION OF VILLAGE IN FIS AREA (SAMPLE 2: Phonthan, Bungwa)									
	FOREST <12>	UP LAND <11>	RESERVOIR <4>	UPPER PADDY FIELD <7>	VILLAGE HOME GARDEN <10>	UPPER PADDY FIELD <7>	WET LAND SWAMPS <2>	LOWER PADDY FIELD <8>	UPPER PADDY FIELD <8>
WET SEASON	bamboo shoot leafy vegeta- ble, other minor forest products	up land rice cattle grazing	fishing	rice, maize, beans cucumbers, vegetable with supplementary irrigation	vegetable banana, coconut poultry, pigs cattle	rice, maize, beans cucumbers, vegetable with supplementary irrigation	no crops fishing	no crops fishing	rice without supplementary irrigation
DRY SEASON	fuel wood other minor forest products	cattle grazing	fishing	rice, maize, beans cucumbers, vegetable in irrigated area grazing land for cattle	vegetable banana, coconut poultry, pigs cattle	rice, maize, beans cucumbers, vegetable in irrigated area grazing land for cattle	rice, maize, beans, cucumbers, vegetable with mtoro irrigation (small pumps) fishing	rice, maize, beans, cucumbers, vegetable with mtoro irrigation (small pumps)	grazing area for cattle
PROBLEM	forest coverage diminish watershed deteriorate	low yield for crops	fish and other aquatic resource are diminishing not enough water storage during D/S	water is not enough to irrigate all potential area low yield for rice in W/S and D/S plant disease	poultry and cattle disease low off farm income low sanitation poor access road, in some area no electricity	water is not enough to irrigate all potential area low yield for rice in W/S and D/S plant disease	aquatic resource deteriorate wet land flora and fauna deteriorate	flood from Jul. to Sep. low yield for rice plant disease	yield of rainfed rice is low plant disease
OBSERVATION	shifting cultivation exploitation of forest products not controlled	limited agriculture production GoL is intro- ducing community forestry	there is no regulated fishing the reservoirs are in poor conditions and have not water management struc- ture to stock and manage water during both W/S and D/S	there is no irrigation canal water distribution is on continuous flow with a lot of water wasted limited use of fertilizer for W/S and D/S, limited use of pesticides	limited veterinary limited income generating act, not enough hy- giene, no toilet in some village poor access road no marketing structure	there is no irrigation canal water distribution is on continuous flow with a lot of water wasted limited use of fertilizer for W/S and D/S, limited use of pesticides	fishing is an important source of income but fishing is not controlled there is no water resource management within the streams and natural canals forming the wet land swamps	there is no water resource management within the streams and natural canals forming the swamps wet land	traditional rice farming is practiced with limited application of fertilizer and pesticide

## **ANNEX 1: SITUATION REPORT OF RRA STUDY AREAS**

AREA 1:	BAN THANA	PAKSAN	BOLIKHAMXAY
AREA 2:	BAN THONGHAK	PAKKADING	BOLIKHAMXAY
AREA 3:	BAN THORK	HINBOUN	KHAMMOUANE
AREA 4:	DONGKASIN	NONGBOK	KHAMMOUANE
AREA 5:	BUNGWA	KHANTHABULY	SAVANNAKHET
AREA 6:	PHONTHAN	XAIPHOUTHONG	SAVANNAKHET



**Area 1: Ban Thana, Paksan district, Bolixamxay province**

<b>Criteria for selection of model development site</b>	
<b>Cross cutting criteria</b>	
High demand of the beneficiaries (farmers) for irrigation development	One (37Kw x 2) pump scheme was installed. The irrigation area is of 70 ha.
Leadership of village chief and capacity of the local authority	Strong
Dynamics and activity of the DAFSO staff in supporting farmers	Acceptable
Size of the development area (100 ha to 300 ha)	70 ha possible to increase to 130 ha
Number of villages covered by the project	One
Accessibility to market (including middleman)	Located on the road No. 13 next to the Mekong river, 16 Km from the Paksan
Accessibility to APB credit	APB provided credit for dry season production and for farm equipment
Not benefited by other donors' project activities	No donors activities
Poverty	Considered as average
<b>Specific criteria for each development model</b>	
Water resource management at micro basin level (where pumps were installed or installation is under plan)	Because irrigation water is pumped from the Mekong river there no major problem concerning basin water resource management.
Flood hazard in wet season	Yes
Availability of progressive farmers	Yes
Availability of existing communal organization	One WUG under the supervision of the village authority
Activity of the communal organization	Construction of irrigation canal, water management in service area, management and repair of pump system.
Development of irrigation infrastructure and its development level	Improve and extend irrigation canal and structure, improve water management in service area
Availability of cooperation among farmer groups in the river basin	With all nearby pump schemes along the Mekong river
Main problems	Flood, irrigation canal, relatively lower income than the surrounding

**Area 2: Ban Thonghak, Pakkading district, Bolixamxay province**

<b>Criteria for selection of model development site</b>	
<b>Cross cutting criteria</b>	
High demand of the beneficiaries (farmers) for irrigation development	The government constructed a concrete weir to store water on the Nam Dua. Irrigation water is pumped from the weir (with diesel pump 65Hp x 2) to irrigate about 100 Ha.
Leadership of village chief and capacity of the local authority	Very strong
Dynamics and activity of the DAFSO staff in supporting farmers	Acceptable
Size of the development area (100 ha to 300 ha)	280 ha when considering the basin area of the upper Nam Dua that is covering other irrigated areas in Ban Nakhua and Ban Nahin.
Number of villages covered by the project	5 villages (Thonghak, Nakhua Nok, Nakhua Nai, Nahin, Nam Dua)
Accessibility to market (including middleman)	Except for Thonghak the 4 other villages are accessible during the wet season. The accessibility to market is low during the wet season.
Accessibility to APB credit	APB provided credit for dry season production and farm equipment
Not benefited by other donors' project activities	No donors activities
Poverty	Considered as poor (Thonghak, Nahin, Nam Dua) and average (Nakhua Nok, Nakhua Nai)
<b>Specific criteria for each development model</b>	
Water resource management at micro basin level (where pumps were installed or installation is under plan)	Micro basin management with an irrigation system consisting of 2 weirs and 3 pump schemes.
Flood hazard in wet season	Yes and severe
Availability of progressive farmers	Yes
Availability of existing communal organization	One strong WUG in Thonghak but no organization in other villages
Activity of the communal organization	Contribute in the weir construction, maintenance and repair. Construction of irrigation canal, water management in service area.
Development of irrigation infrastructure and its development level	Improvement of the existing weirs, irrigation canal and structure, access road for Thonghak
Availability of cooperation among farmer groups in the river basin	Cooperation between farmers utilizing water for production in same water resource area. Possibility to develop WUA covering the water basin.
Main problems	Flood, deteriorated weirs, lack of irrigation, lack of financial source and credit

**Area 3: Ban Vangkhong, Hinboun district, Khammouane province**

<b>Criteria for selection of model development site</b>	
<b>Cross cutting criteria</b>	
High demand of the beneficiaries (farmers) for irrigation development	The government has a plan to install a pump scheme in the area. The farmers already dug some part of irrigation canal.
Leadership of village chief and capacity of the local authority	Very strong
Dynamics and activity of the DAFSO staff in supporting farmers	Acceptable
Size of the development area (100 ha to 300 ha)	There are actually 52 ha of rainfed paddy land. The villagers want to irrigate 100 ha by allocating new land (about 50 ha). Total potential area 80 ha.
Number of villages covered by the project	One village
Accessibility to market (including middleman)	Located next to the Nam Hinboun river, 7 km from the road No. 13, 26 Km from the district town. The area is 1.5 Km from Pak Nam Hinboun the district's port between Laos and Thailand.
Accessibility to APB credit	Because there is no dry season activity APB has not provided credit in the pass. The area is accessible by APB.
Not benefited by other donors' project activities	No donors activities
Poverty	Considered as poor
<b>Specific criteria for each development model</b>	
Water resource management at micro basin level (where pumps were installed or installation is under plan)	The irrigation system will utilize water resource from the Nam Hinboun one of the main tributaries of the Mekong. In term of basin water resource management there is no major problem foreseen.
Flood hazard in wet season	Yes and severe
Availability of progressive farmers	Yes
Availability of existing communal organization	No communal organization
Activity of the communal organization	Village authority leaded the construction of irrigation canal and allocated the plot of land for future irrigated area.
Development of irrigation infrastructure and its development level	Install pump system, construction of irrigation canal, land clearing
Availability of cooperation among farmer groups in the river basin	Cooperation between farmers utilizing water for production in same water resource area. Possibility to create one farmer organization for the Nam Hinboun delta.
Main problems	Flood, lack of irrigation, poverty low income

**Area 4: Dongkasin, Nongbok district, Khammouane province**

<b>Criteria for selection of model development site</b>	
<b>Cross cutting criteria</b>	
High demand of the beneficiaries (farmers) for irrigation development	The government installed a pump station (75Kw x 2 ) that is pumping water from the Sebangfai river. The farmers request further expansion of the canal to two villages.
Leadership of village chief and capacity of the local authority	Strong
Dynamics and activity of the DAFSO staff in supporting farmers	Acceptable
Size of the development area (100 ha to 300 ha)	The present irrigated area in 100 ha. The potential area is 240 ha
Number of villages covered by the project	3 villages (Dongkasin, Dongbun Yai, Nakham)
Accessibility to market (including middleman)	Located about 7 km from the district town of Nongbok and 33 Km from Thakek. The accessibility to market is acceptable. In the area there is contract farming for tobacco.
Accessibility to APB credit	APB provided credit for both wet and dry season production and for farm equipment
Not benefited by other donors' project activities	No donors activities
Poverty	Considered as wealthy
<b>Specific criteria for each development model</b>	
Water resource management at micro basin level (where pumps were installed or installation is under plan	The irrigation system is utilizing water from the Sebangfai river a major tributary of the Mekong river. In term of basin water resource management there is no major problem foreseen.
Flood hazard in wet season	Yes
Availability of progressive farmers	Yes
Availability of existing communal organization	Yes, WUG, rice bank, village development funds
Activity of the communal organization	Construction of irrigation canal, water management in service area (very advanced with calculation and collection of ISF)
Development of irrigation infrastructure and its development level	Improvement and extension of irrigation canal
Availability of cooperation among farmer groups in the river basin	Cooperation between farmers utilizing water for production in same water resource area in the Sebangfai area
Main problems	Flood, lack of irrigation facilities

**Area 5: Bungwa, Khanthabury district, Savannakhet province**

<b>Criteria for selection of model development site</b>	
<b>Cross cutting criteria</b>	
High demand of the beneficiaries (farmers) for irrigation development	The community under the initiative of the former sub-district of Banthork (16 villages) constructed a communal reservoir in the eighties. At that time the reservoir was managed by a cooperative. After the dissolution of the cooperative and then after of the sub-district the reservoir have been left without proper management. At present, the farmers from 5 villages are individually using the water from the reservoir and its natural canal and pond to irrigate about 50 ha.
Leadership of village chief and capacity of the local authority	Strong leadership but lack of cooperation between villages
Dynamics and activity of the DAFSO staff in supporting farmers	Acceptable
Size of the development area (100 ha to 300 ha)	The present irrigated area in 50 ha. The potential area is 100 ha
Number of villages covered by the project	5 villages (Bungwa Nua, Bungwa Tai, Xok kang, Xok Tai, Dongmakyang)
Accessibility to market (including middleman)	Located about 6 km from. Concerning market accessibility, the area is a good potential for development of vegetable and food for the provincial capital.
Accessibility to APB credit	APB provided credit for wet and dry season production and for farm equipment
Not benefited by other donors' project activities	Activity of ADB forest plantation project.
Poverty	Considered as wealthy and average.
<b>Specific criteria for each development model</b>	
Water resource management at micro basin level (where pumps were installed or installation is under plan)	The Bungwa reservoir is a kind of water regulator for the wet lands area that is flooded during the wet season due to problem of drainage (of the Houay Sompoy). During the dry season the flood fields are irrigated. There is a possibility to develop a water resource management system of the wet land of the Houay Sompoy. But the water resource system is very complicated and will have to target more villages and area that are ecologically interrelated.
Flood hazard in wet season	Yes from both Houay Sompoy and Mekong river.
Availability of progressive farmers	Yes
Availability of existing communal organization	No WUG
Activity of the communal organization	No activity
Development of irrigation infrastructure and its development level	Improvement of the Bungwa reservoir.
Availability of cooperation among farmer groups in the river basin	Cooperation between farmers/villages using the same water resource. Possible development of a WUA for the Sompoy wet land area
Main problems	Flood, lack of irrigation, Low income, spotted soil salinity

**Area 6: Phonthan, Xaiphouthong district, Savannakhet province**

<b>Criteria for selection of model development site</b>	
<b>Cross cutting criteria</b>	
High demand of the beneficiaries (farmers) for irrigation development	The farmers with the assistance from the government have constructed an irrigation reservoir (Koutapo) that is actually irrigating 50 ha.
Leadership of village chief and capacity of the local authority	Strong
Dynamics and activity of the DAFSO staff in supporting farmers	Acceptable
Size of the development area (100 ha to 300 ha)	The present irrigated area is 50 ha. The potential area is 100 ha
Number of villages covered by the project	2 villages (Phonthan, Nakham Tai)
Accessibility to market (including middleman)	Located about 14 Kilometer from the road No.13, 55 Km south of Savannakhet. The market accessibility is acceptable.
Accessibility to APB credit	APB provided credit for wet and dry season production and for farm equipment
Not benefited by other donors' project activities	No donors activities
Poverty	Considered as average.
<b>Specific criteria for each development model</b>	
Water resource management at micro basin level (where pumps were installed or installation is under plan)	The Koutapo reservoir could be used as model for small-scale gravity irrigation managed by farmers. In the water resource management context, the management of the reservoir watershed could be an important component.
Flood hazard in wet season	Yes but not severe
Availability of progressive farmers	Yes
Availability of existing communal organization	One strong WUG
Activity of the communal organization	Construction of the reservoir and irrigation canal, water management of the service area.
Development of irrigation infrastructure and its development level	Improvement of the Koutapo reservoir, improvement of irrigation canals, improvement of access road.
Availability of cooperation among farmer groups in the river basin	Cooperation between farmer group from the different villages using the water from the reservoir and forest resource from the watershed area.
Main problems	Lack of irrigation, Lack of financial source and credit

## **PCM Workshop for Model Areas**

Proceeding of PCM Workshop

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF AGRICULTURE AND FORESTRY  
THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

THE STUDY  
ON SMALL SCALE AGRICULTURAL  
AND RURAL DEVELOPMENT PROGRAM  
ALONG THE MEKONG RIVER  
IN THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

PROCEEDINGS OF  
PROJECT CYCLE MANAGEMENT (PCM) WORKSHOPS  
IN MODEL F/S AREAS

November 29 – December 30, 1999  
Bolikhamxay, Khammounane, and Savannakhet Provinces  
LAO PDR.

JANUARY, 2000

SANYU CONSULTANTS INC.

NIPPON KOEI CO., LTD.



## Table of Contents

	Page
<b>SUMMARY REPORT</b>	
1. INTRODUCTION	1
2. OBJECTIVES	1
3. PROJECT CYCLE MANAGEMENT METHODS	2
3.1. METHODOLOGY	2
3.2. APPLIED METHODS	3
4. WORKSHOP PROCEEDINGS AND OUTCOMES	4
4.1. VANGKHONG F/S AREA	4
4.1.1. BACKGROUND	4
4.1.2. PROCEEDINGS	5
4.1.3. OUTCOMES OF THE WORKSHOP	6
4.2. PHONTHAN F/S AREA	9
4.2.1. BACKGROUND	9
4.2.2. PROCEEDINGS	10
4.2.3. OUTCOMES OF THE WORKSHOP	11
4.3. THONHARB-NAKHUA F/S AREA	18
4.3.1. BACKGROUND	18
4.3.2. PROCEEDINGS	18
4.3.3. OUTCOMES OF THE WORKSHOP	19
5. LIMITATION OF THE WORKSHOP	23
6. FOLLOW-UP	24
 <b>ANNEXES</b>	
1. VANGKHONG LIST OF PARTICIPANTS PCM PROBLEM TREE PCM OBJECTIVE TREE PDM	
2. PHONTHAN LIST OF PARTICIPANTS PCM PROBLEM TREE PCM OBJECTIVE TREE PDM	
3. THONHARB-NAKHUA LIST OF PARTICIPANTS PCM PROBLEM TREE PCM OBJECTIVE TREE PDM	
4. COMPOSITION OF TFT IN EACH PROVINCE	
5. FEED-BACK COMEDY AND MUSIC PLAY – THE SCRIPT	

## SUMMARY REPORT

### 1. INTRODUCTION

The second phase of the present study aimed at achieving the feasibility study in F/S areas that has been selected during the course of the previous phase of the study. The selection process for the model F/S areas elaborated by the study team follows the development strategies of the master plan. Whereas, successful village and irrigation-based agricultural and development project depends largely on the real needs of the farmer community and on the capacity of the farmers to bear the ownership of the irrigation system.

Based on the selection criteria and on the outcome of the rapid rural appraisal and field reconnaissance survey made by the team during the wet season 1999, the study selected 3 model F/S areas within the 3 provinces (one area in each province). The areas are;

- Thongharb-Nakhua area covering 5 villages in Pakkading District, Bolikahmaxay province.
- Vangkhong area covering 1 village in Hinboun District, Khammouane province, and
- Phonthan area covering 3 villages in Xaiphouthong District, Savannakhet province.

In order to further analyze the situation and conditions of each model ~~F/S~~ areas, as well as to precise development alternatives with the farmer community and local authority concerned, 3 Project Cycle Management (PCM) workshops have been conducted in the 3 model areas between November 29, 1999 and December 30, 1999.

The results from the PCM workshops will be used by the study team to formulate development goals, objectives, out-puts and activities for the model areas. And, to define the necessary in-puts and support needed to develop the area under the study master plan.

### 2. OBJECTIVES

The objectives of the workshop is to discuss the problems and constraints of development in the 3 selected model area and through the participatory project planning methods (PCM methods) arrive at analyzing and determining the development objectives and activities for future development.

The expected outcome of the 3 workshops is an agreed direction and approach for agricultural and rural development specified in a specific project design matrix (PDM) for each model F/S area.