

ANNEX-B

Rural Community/Farmers Organization

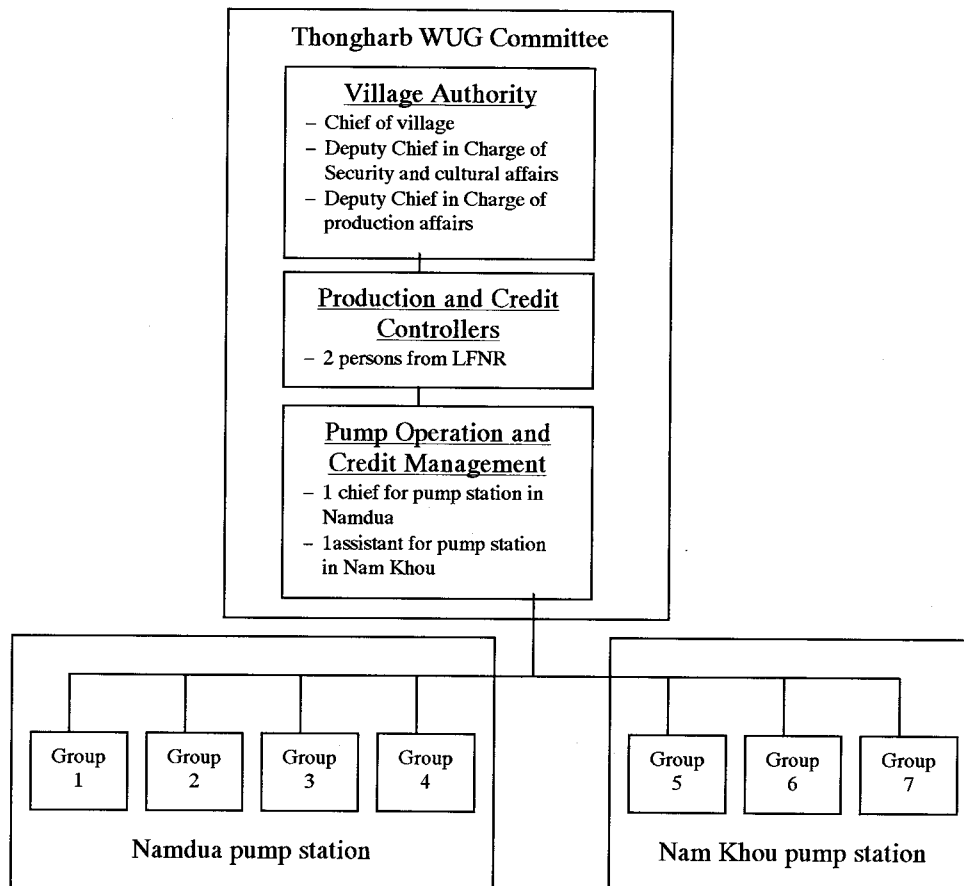
ANNEX B Rural Community/Farmers Organization

Farmers Organization Basic Development Plan in F/S Areas

A. Thongharb Nakhua Area

A.1 Present conditions in Thongharb Nakhua Area

There is one Water User Group at Ban Thongharb established in 1997. The organization structure of the WUG is village authority based and is mostly organized to receive credit support from the APB Bank in term of in-put supplies and fuel for the diesel pumps. 7 credit groups were formed under the WUG committee. Those credit groups that are also called production groups have not water management function because groups were not organized according to canal intake. The water management concept of Thongharb scheme consists of water delivery by continuous flow for 2 diesel pump stations. Farmers are trying to rotate the distribution of water but the canals and structures are in poor conditions and cannot allow rotational distribution. The structure of the existing WUG is shown in following.



There is no general assembly and the chief of the village is acting as the chief of the WUG. Problems are solved within the framework of the committee. The WUG

committee other function is to secure labor for the construction and repairs of the weirs constructed by contractors under the National Pump Installation and Management Program (NPIMP) and for the construction of irrigation canal which is considered to be the farmers' contribution in the irrigation development. It was noted that participatory labor was initiated by the committee with the involvement of all households in the village. However, the villagers have been very active in constructing temporary earth weir on the Namdua weir, which was washed out during the raining season 1998 for the production of irrigated paddy. PAFSO provided sandbags for the temporary weir. This shown that there is a strong co-operative attitude in the village.

Water charge is collected in term of credit for fuel. The 7 credit groups that were organized through the WUG have to give their portion of credit for fuel that is provided in cash by the APB to the WUG committee. The WUG Committee will then arrange for the purchase, transport of the fuel and lubricants for the operation of the pumps. The need of credit for fuel was calculated for each household beneficiary on the basis of fuel and lubricants consumption experienced during the first paddy production season in 1997. Aside from the contribution to the fuel there is no other charges.

In 1997 under the NPIM program a WUG was established at Ban Nakhua Nai with the same model as Ban Thongharb. Because of insufficient water for irrigation due to the irrigation system and inappropriate water management, the farmers experienced heavy loss and dept to the APB bank. During the dry season 1998-99 the farmers did not produce because they are in dept with APB and because there was few people interested.

Because of its small size the irrigation scheme of Ban Nahin is run by one credit group. On the other hands, there is limited credit provision in the area during the wet season because of high risk in production due to flood.

A.2 Farmer participation in irrigation and rural infrastructure development

In Thongharb-Nakhua areas small weirs, irrigation canals and structures will be constructed to secure stable pumping of the existing pumps stations. The farmers of the fives villages who will benefit from the irrigation development and rural infrastructure development will own the infrastructure works after the completion of their construction.

According to the elaboration of the PDM for the area the farmers will have to contribute 15% of the construction with labor and local materials (wood poles, etc.) the remaining 85% will be contributed by the Government of Lao PDR. The latter contribution will be collected as Village Development Funds (VDF) from the beneficiaries.

In order to enhance the ownership of the irrigation system at the early stage of irrigation development farmers will participate to design, plan, implement and evaluate the construction works. The costs of construction will be budgeted and kept as low as possible in order to meet the contribution capacity of the national budget and of the farmers' community. In order to reduce certain costs of construction

participatory construction methods (communal participatory labor, labor based by village craftsmen, construction by contractor with supervision of farmers) as specified in the master plan will be applied.

It is anticipated that the following participatory methods be applied for the following irrigation and rural infrastructure improvements.

- *Communal labor based:* construction of irrigation canals, maintenance and repair of irrigation canals.
- *Labor based by village craftsmen:* construction of irrigation structures including farm turn out at secondary, tertiary and quarterly canals.
- *Construction by contractor with CSC supervision:* construction of concrete weirs, construction of roads.

To supervise the construction and to record the real costs of construction as well as the contribution from each party (farmers and GoL) a village based Construction Support Committee (CSC) will be organized in each group of villages. The first group consists of Thongharb and the second group of Nakhua Nai, Nakhua Nok, Nahin and Namdua.

With the support of TFT and SMS from PAFSO the CSC roles and duty will be to:

- Plan the construction according to design
- Budget the construction and contribution from each parties
- Select the methods of constructions for each construction items (communal participatory labor, labor based by village craftsmen, contractor)
- Secure construction service from contractors if needed
- Secure labor and construction materials
- Implement the construction
- Monitor and control the construction works provided by the contractor
- Evaluate the construction works
- Conclude the costs of investment and the contribution from each party.

The organization of the CSC will comprise of representatives of the village administrative committee (chief or deputy chief of village) and selected farmers will form the board of the committee.

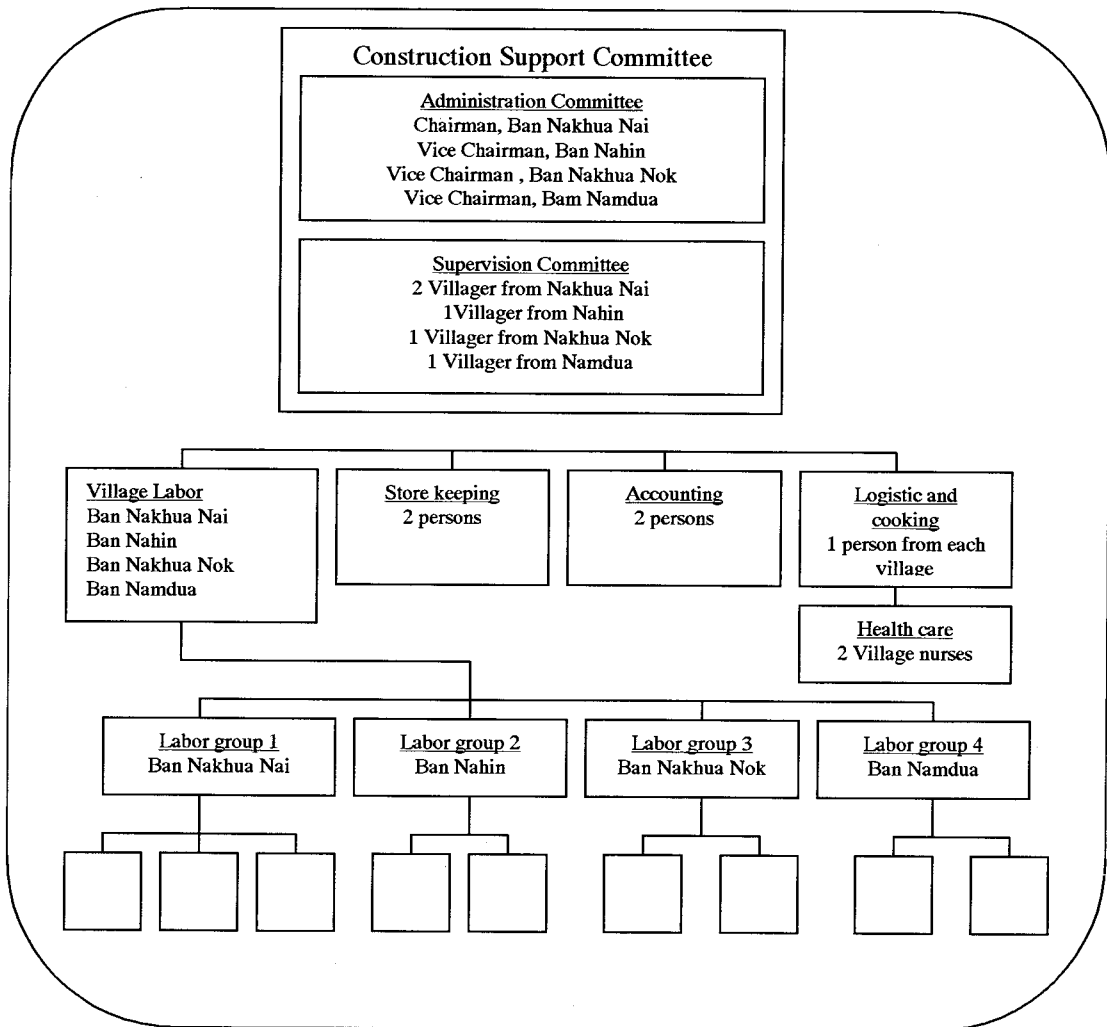
In the case of Ban Thongharb were a WUG already exists, the WUG committee will be organized as CSC. The production groups will be formed as labor groups.

Representatives of each village selected from the future beneficiaries as committee members responsible for the following functions:

- Village labor
- Store keeping
- Accounting
- Logistic and cooking
- Health care (village nurse)

In the organization of the villages' labor, the farmers will have to be grouped into labor group depending on the scope and amount of work to be done for each construction item.

A sample of the CSC for Nakhua and Nahin group is shown as follows:



The above organization is elaborated for participatory labor and labor based construction. In the case of construction by contractors the CSC's Supervision Committee will supervise the work of the contractor.

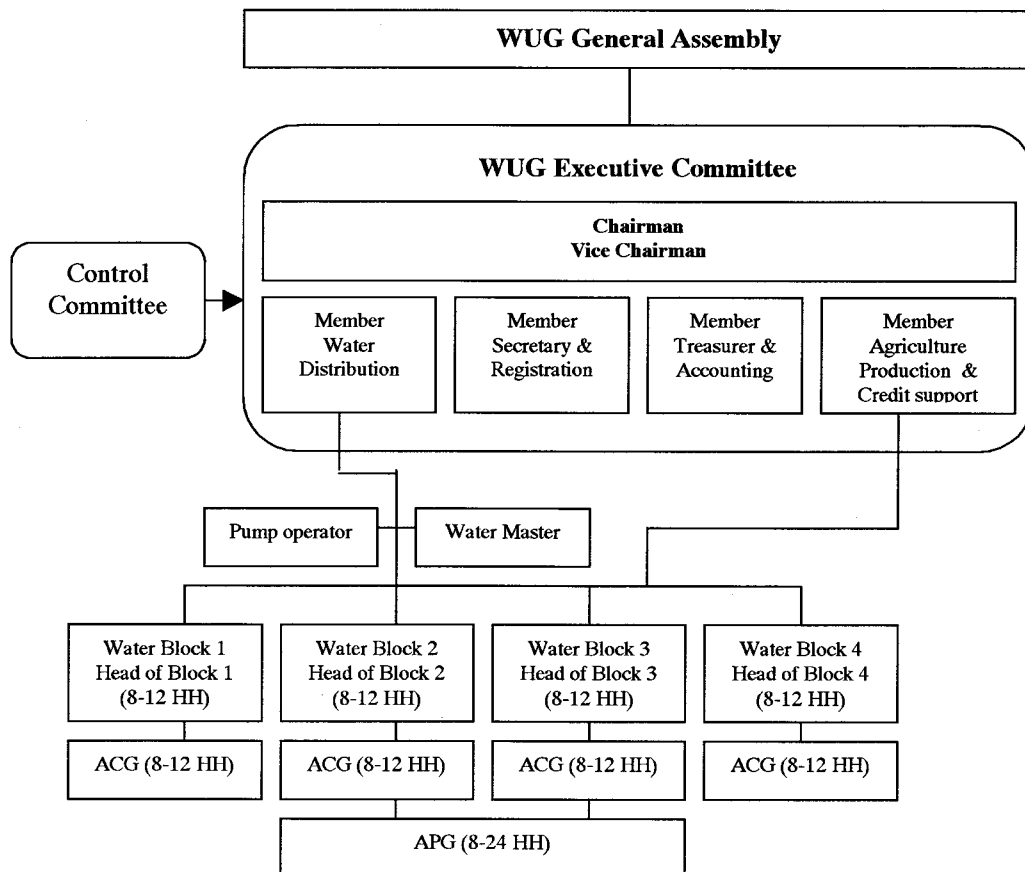
A.3 Water User Organization Development

A.3.1 Development of WUG

For existing WUG at Ban Thongharb

The existing WUG at Ban Thongharb will be strengthened to assume a proper operation and maintenance of the irrigation system. The organization of the WUG will change from credit unit to block unit allocated according to the layout of the canals and structures.

At the initial stage after the completion of the irrigation infrastructure development, the existing WUG will be divided into two different WUGs for the two pump stations located in Ban Thongharb. The process for the development of the WUGs will be done as specified in the master plan. Therefore as sample organization for the WUG of Namdua Station could be drawn as below.



The organization of the WUG for the Nam khou station will be similarly developed as the one for Namdua station but will have 3 water blocks. The water blocks will increase in relation to increased irrigated areas. One control committee could be established for the two WUGs.

For areas with no WUG

After the completion of irrigation development in Nakhua and Nahin areas, WUGs will be organized for all pumping stations. The organization will be based on the water allocation per blocks designed for each system similar as the one for Namdua pump station specified above. In total 3 WUGs will be organized in relation to improved irrigated areas. At the initial stage there will be 2 WUGs at Ban Nakhua Nai and 1 WUG at Ban Nahin. The 3 WUGs will service farmers from 4 villages.

A.3.2 Legalization of WUG to WUA

Additional steps will be made to strengthen the managerial capacity of the WUG and to establish the necessary legal framework to sustain the organization. The legal entity of the WUG will be up-graded through the establishment of WUA. This will be done through additional development in their by-laws. The by-laws of the WUG comprise of an Article of Association, an internal regulations covering water management and other issues related to operation of the organization. The development of those legal documents will be the base for the registration of the WUG as WUA with the authority concerned.

In Thongharb area after the improvement of the irrigation facilities and after the operation of the schemes by the WUG for two years, the two WUGs will be upgraded to form one WUA. The legal process to develop WUA as specified in the master plan will be applied.

In Nakhua and Nahin area, after the operation of the schemes by the WUG for two years, the 3 WUGs will be upgraded to form one WUA. The legal process to develop WUA as specified in the master plan will be applied.

For the Thongharb Nakhua model area as water resource is very limited during the dry season, the concept to establish a Federation of WUA will be established in order to coordinate the utilization of water resource. The FWUA function will be as a water board, which main task will be to allocate water right to new water resource project in the area and to solve problems between WUA and between stakeholders. The detail organization and function of the FWUA will depend on the water resource regulation at national level and will be specified during the project implementation.

The following drawing summarizes the schedule of WUG and WUA development in the model area.

Thonharb - Nakhua Area Institutional development activities	Shortterm (Years)					Medium-Long term (years)				
	1	2	3	4	5	6	7	8	9	10
Irrigation development	[Bar from year 1 to 5]									
Strengthen 2 WUG Ban Thongharb	[Bar from year 1 to 5]									
Merge 2 WUG into 1 WUA Ban Thonharb	[Bar from year 1 to 5]									
Strengthen 1 WUA Ban Thonharb	[Bar from year 1 to 5]									
Establish & strengthen 3 WUG Nakhua-Nahin	[Bar from year 1 to 5]									
Merge 3 WUG into 1 WUA Nakhua-Nahin	[Bar from year 1 to 5]									
Est./Strengthen 1 WUA Nakhua-Nahin	[Bar from year 1 to 5]									
Est./Strengthen 1 FWUA Thongharb-Nakhua	[Bar from year 1 to 5]									

A.3.3 Strengthening the capacity of WUO in Operation and Maintenance

The WUG, and then later the WUA will be continuously strengthened to assume the operation and maintenance of the irrigation system which has been re-installed or improved in the area. The important elements for O&M development are:

- To develop the practice of appropriate water management concepts of each irrigation system
- To introduce the concept for cost recovery, and
- To transfer O&M responsibilities and irrigation assets to the farmers' community.

As specified in the master plan, the aim is to initiate the farmers in the elaboration of water management concept (WMC) and irrigation system fee (ISF) of their irrigation scheme. The main activities for developing proper water management practices will be as follows.

- Developing water management concept for each irrigation system.
- Water blocks (or units) will be established at each secondary turn out.
- An Irrigation Service Fee (ISF) will be calculated for each irrigation system
- The WUG will be requested to collect part of the costs for replacement at the initial stage as reserve funds in the form of Village Development Funds (VDF). In the area, VDF annual charge (for paddy production) for fuel pump irrigation will be 100 Kg paddy/ha/year for paddy production, and 50 Kg paddy/ha/year for other crop production. In that case 90% of the annual VDF charge will be transferred to the VDF and 10% pay back to the government.
- In case that the VDF amount calculated under the present Prime Minister Decree is lower than the real capital investment cost of the irrigation scheme, the WUO will have to secure more funds for the replacement or main repair of pump or other infrastructure.
- After the completion of the necessary irrigation development, the WUG will test the water management system for the first dry season paddy production and for the wet season supplementary irrigation.
- On-farm water management practice at block level will be practiced by the WUO.

Following the government policies to transfer irrigation system to farmer organization, the project will ensure that the pump station and irrigation infrastructure in each location is correctly transferred to the WUO. In coordination with the above development activities, an IMT process as specified in the master plan will be applied to the irrigation schemes.

In relation to the IMT process, the WUO will be strengthened to assume full financial and legal responsibilities. The upgrading of WUG to WUA and from WUA to FWUA will be an important activity. A legal framework will be defined and a legal process developed for the WUO during each period.

A.4 Develop Farmer Capacity in Agriculture Production

As specified in the master plan, the strategy is to develop farmers' capacity in the management of their agriculture production and for them to adapt their production according to changing conditions of the market. In the model area, existing farming systems will be improved towards the development paddy production, cash crops production, and other farm income generating activities. The farmers will have to increase their knowledge and skills to cope with required developments in their farm. The additional knowledge will not only be in farming technology but also in the field of farm management and marketing of farm products.

The development of the farmer cooperative society in the model area will be made in conjunction with the development of WUO with the development of "farmers groups" for specific agriculture development activities. Following the approach of farmer group development, agriculture production groups (APGs) will be established and strengthened. The development of the APGs will be implemented by the elaboration and application of the "group development process" as specified in the master plan. In relation to the development of APGs, agriculture credit groups (ACGs) and buying and selling groups (BSC) will also be established and strengthened.

Agriculture Production Group (APG)

Following the implementation of the group process (step 1: group preparation), alternatives farming methods and productions will be defined by the farmers. Farmers having the same activities will be encouraged to group themselves into APG. The size of the APG will depend on the activities and could content from 7-15 members. At the initial stage it is recommended to keep a small number of members in order to fit with conditions of APB in case there is credit support. The function of the APG will then be the same as an Agriculture Credit Group (ACG).

In the Thongharb-Nakhua area potential APGs will be established for:

- Improved rainfed rice production
- Improved irrigated rice production
- Banana production
- Feed crops production
- Food processing
- Small animal raising

The development of the APG will be done by the application of the 4 steps of the group process. One of the most important steps is step 2: planning. In step 2, with the assistance of TFT farm plans are elaborated for the APGs. The farm plan is a tool for bottom up planning which will define the target and objectives of the APG production scheme as well as the different activities and inputs needed to secure the production of the group. TFT will base on the farm plans to elaborate their support service plan. In relation to the support from the TFT to the APG, contact farmers will be designed by the TFT. At the initial stage, contact farmers will be selected from the APG leaders and from some potential individual progressive farmers.

Women groups will also be developed as APG especially for the income generating activities such as food processing and small animal raising.

Agriculture Credit Group (APG)

Agriculture credit group under the direction of APB will be promoted to increase the productivity in the area. It is anticipated that when the APG has evolved to an acceptable level the ACG will be incorporated in the APG organization structure and then later to the Agriculture Cooperative Structure. If this happen, APB will loan directly to the cooperative as a group loan or loan to enterprises.

Buying and Selling Group (BSG)

In order to promote local trade, BSG will be formed for the major commodity such as paddy. The formation of those groups will be made by using the same process as for the APG and if possible at the initial step of the group process (step 1). By doing this, farm plans will already define the producer and the buyer.

However, BSG member will be selected within the farmer community, village middlemen will be encouraged to enter the group. It is foreseen that 1 BSC will be formed in each village or in each group of village.

Develop Legal Framework of Farmer Groups through the establishment and development of Agriculture Cooperatives

It is foreseen that when the APGs have evolved to a certain level where they have enough skill and knowledge to develop their agriculture production according to the demand of the market, the development of the legal framework of APGs will be one important component. Depending on the social and economical conditions, the APGs will evolve to form formal organizations such as agriculture cooperatives.

The main objective of the WUA to be developed in the schemes is to operate and maintain the irrigation facilities. In addition, production support and marketing services as well as credit service will be also included in the WUA objective. At the initial stage, agriculture support services to the APG will be organized under the structure of the WUA but will later evolve to the structure of Agriculture Cooperatives.

In case those two cooperative societies (WUA and Agriculture Cooperative) are organized the WUA will be responsible for O&M of irrigation activities, and the Agriculture Cooperative will handle the agricultural support services.

A.5 Support needed

The support needed for the establishment and development of the activities as specified above will be in the form of training to farmers, contact farmers, group leaders, and WUO committee members. There will be also additional support in term of technical assistance for the development of participatory construction, for the development of the group development process, and for the legal framework of FWUA and agriculture cooperatives. The support will be combined with the support needed for the 2 other model areas and will consist of the training activities in following. However, training need would be evaluated during the implementation of the group development process and additional training or support could be proposed by the farmers and TFT in the current of the project implementation.

Development of participatory construction

- Training in participatory construction methods
- Study tour for participatory construction

Development of WUO

- Training WUO Executive Committee in WUO management
- Training water block leaders in water management
- Training pump operators
- Study tour for water block leaders

Development of APGs

- Training farmers in group development process
- Training farmers in elaboration of farm plans
- Training APGs leaders in group management and leadership
- Training and study tour for contact farmers in establishment of model field
- Training farmers on food processing and new crops production

B. Vangkhong Area

B.1 Present conditions in Vangkhong area

In the area there is no farmer organization aside from the village authority organization. Under the flood relief program of the government a pump station has just been installed. The villagers under the leadership of the village administrative committee constructed preliminary irrigation canals with some support of an NGO (CARE International) that provided rice for the villagers who went to the collective labor. Communal collective labor was organized by the village authority under their two formal household units.

In the current of the study, It was noted by the study team that the actual irrigation system installed by PAFSO would not be able to irrigate all the land area as requested by the farmers. Alternatives were presented during the government and the alternative to establish a new system down-stream to irrigate 60 ha was chosen.

There is no ACG, because the area has a high risk of flood during the wet season. There is limited rainfed paddy production and no credit support from APB.

Other income generating activities are fishing in the river Hinboun during a certain period of the year and the collect of forest products. Most of the river fish and minor forest products are sold to Thailand through middlemen. There is no informal production group for such kind of activities.

B.2 Farmer participation in irrigation and rural infrastructure development

According to the selected alternative, the existing pump station will be moved down stream, and irrigation canals and structures will be constructed to secure the production of paddy in about 60 ha. The farmers will have to clear 50 ha of brush land for crop production during the dry season because most of the actual rainfed area is flooded during the wet season.

Following the policy of the government, the farmers who will benefit from the irrigation development will own the irrigation system after the completion of the construction. According to the elaboration of the PDM for the project, GoL will contribute 100% for the construction of the head works. Farmers will have to contribute 5% of the construction with labor and local materials (wood poles, etc.) the remaining 65% will be contributed by the GoL and 30% borrowed from APB. All government contribution will be collected as Village Development Funds (VDF) from the beneficiaries. For the land opening of about 50 ha the villagers intends to borrow money from the APB to pay 70% of the land clearing cost. In relation to the labor force and to the capacity to pay of the farmers in the area it is foreseen that irrigation area as well as land clearing area will be developed step by step. This mean that the 50 ha of land clearing would not be developed within a short period of time.

In order to enhance the ownership of the irrigation system at the early stage of irrigation development farmers will be assisted to design, plan, implement and evaluate the construction works. The costs of construction will be budgeted and kept as low as possible in order to meet the contribution capacity of the national budget

and of the farmers' community. In order to reduce certain costs of construction participatory construction methods (communal participatory labor, labor based by village craftsmen, construction by contractor with supervision of farmers) as specified in the master plan will be applied.

It is anticipated that the following participatory methods be applied for the following irrigation and rural infrastructure.

- *Communal labor based:* construction of secondary and tertiary irrigation canals, maintenance and repair of irrigation canals.
- *Labor based by village craftsmen:* construction of irrigation structures including farm turn out at secondary, tertiary and quarterly canals.
- *Construction by contractor with CSC supervision:* construction of system head work structures, main canals, and roads.

To supervise the construction and to record the real costs of construction as well as the contribution from each party (farmers, GoL, and APB) a village based Construction Support Committee (CSC) will be organized.

With the support of TFT and SMS from PAFSO the CSC roles and duty will be to:

- Plan the construction according to design
- Budget the construction and contribution from each parties
- Select the methods of constructions for each construction items (communal participatory labor, labor based by village craftsmen, contractor)
- Secure construction service from contractors if needed
- Secure labor and construction materials
- Implement the construction
- Monitor and control the construction works provided by the contractor
- Evaluate the construction works
- Conclude the costs of investment and the contribution from each party.

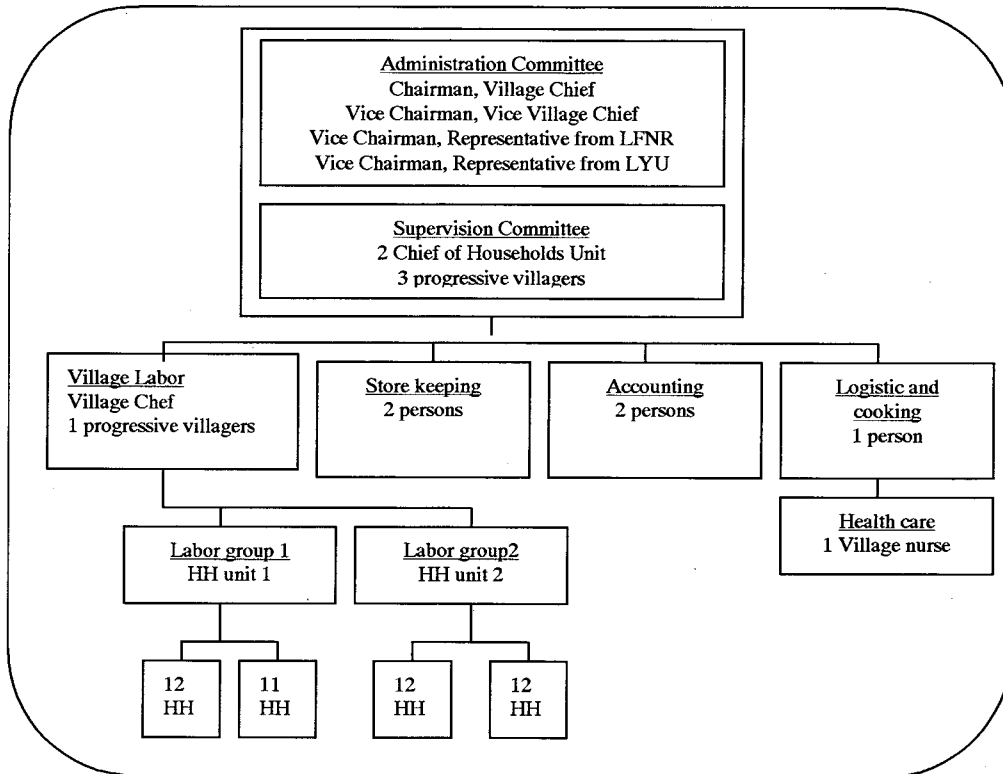
The organization of the CSC will comprise of representatives of the village administrative committee (chief or deputy chief of village) and selected farmers will form the board of the committee.

Representatives of each village selected from the future beneficiaries as committee members responsible for the following functions:

- Village labor
- Store keeping
- Accounting
- Logistic and cooking
- Health care (village nurse)

In the organization of the labor, the farmers will have to be grouped into labor group depending on the scope and amount of work to be done for each construction item.

The organization of the CSC for Vangkhong could be as follows:



The above organization is elaborated for participatory labor and labor based construction. In the case of construction by contractors the CSC's Supervision Committee will supervise the work of the contractor. By considering the size of the village (47 households) and the limited labor force in the village, it is anticipated that most of the construction works will be made by contractors. Therefore, the involvement of the CSC in the procurement of construction services and in the supervision of the construction will be one of the important activities for the irrigation scheme development.

B.3 Water User Organization Development

B.3.1 Development of WUG

During the construction of the new irrigation system down stream the existing system that can irrigate about 10 to 15 ha will be utilized. The farmers who are utilizing irrigation water in the existing scheme will be organized into a small WUG by implementing the concept as specified in the master plan. This WUG will serve as a training platform for the future irrigation system down stream. By considering the actual canal layout and irrigated land 2 blocks will be established with 6 to 8 households in each block.

The pump operator will also take the function of water master and will records the use of water by each block. The process for the development of the WUG and APG will be elaborated for the farmer organization from the beginning. One APG for the production of paddy in flooded area (DC 2 type) will be organized.

After the completion of irrigation development of the new scheme down stream a WUG will be organized base on the above development. A new WUG committee will be elected and additional block will be added into the organization according to the layout of the irrigation canals and structures. As the organization will cover more area and will have more members the service functions will also be added to the organization.

B.3.2 Legalization of WUG to WUA

After one or two year operation, additional steps will be made to strengthen the managerial capacity of the WUG and to establish the necessary legal framework to sustain the organization. The legal entity of the WUG will be up-graded through the establishment of WUA. The process elaborated in the master plan will be applied.

The following drawing summarizes the schedule of WUG and WUA development in the model area.

Vangkhang Area	Shorterm (Years)					Medium-Long term (years)				
	1	2	3	4	5	6	7	8	9	10
Irrigation development	▨▨▨▨▨									
Est/Strengthen 1 WUG	▨▨▨▨▨									
Est/Strengthen 1 WUA						▨▨▨▨▨▨▨▨▨▨				

By considering the small size of the WUG, the development of WUG to WUA will be made with the incorporation of a WUG located nearby.

B.3.3 Strengthening the capacity of WUO in Operation and Maintenance

The WUG, and then later the WUA will be continuously strengthened to assume the operation and maintenance of the irrigation system which has be re-installed or improved in the area. The important elements for O&M development are:

- To develop the practice of appropriate water management concepts of each irrigation system
- To introduce the concept for cost recovery, and
- To transfer O&M responsibilities and irrigation assets to the farmers' community.

As specified in the master plan, the aims is to initiate the farmers in the elaboration of water management concept (WMC) and irrigation system fee (ISF) of their irrigation scheme. The main activities for developing proper water management practices will be as follows.

- Developing water management concept for each irrigation system.

- Water blocks (or units) will be established at each secondary turn out.
- An Irrigation Service Fee (ISF) will be calculated for each irrigation system
- The WUG will be requested to collect part of the costs for replacement at the initial stage as reserve funds in the form of Village Development Funds (VDF). In the area, VDF annual charge (for paddy production) for electric pump irrigation will be 150 Kg paddy/ha/year for paddy production, and 75 Kg paddy/ha/year for other crop production. In that case 85% of the annual VDF charge will be transferred to the VDF and 15% pay back to the government.
- In case that the VDF amount calculated under the present Prime Minister Decree is lower than the real capital investment cost of the irrigation scheme, the WUO will have to secure more funds for the replacement or main repair of pump or other infrastructure.
- After the completion of the necessary irrigation development, the WUG will test the water management system for the first dry season paddy production and for the wet season supplementary irrigation.
- On-farm water management practice at block level will be practiced by the WUO.

Following the government policies to transfer irrigation system to farmer organization, the project will ensure that the pump station and irrigation infrastructure in the area is correctly transferred to the WUO. In coordination with the above development activities, an IMT process as specified in the master plan will be applied to the irrigation schemes.

In relation to the IMT process, WUO will be strengthened to assume full financial and legal responsibilities. After the completion of the irrigation development it is necessary that the irrigation and rural assets be transferred correctly to the WUO. The IMT process developed earlier by DOI will be improved and applied. It is recommended to transfer the irrigation assets after the completion of the construction. The upgrading of WUG to WUA will be an important activity. A legal framework will be defined and a legal process developed for the WUO during each period.

B.4 Develop Farmer Capacity in Agriculture Production

As specified in the master plan, the strategy is to develop farmers' capacity in the management of their agriculture production and for them to adapt their production according to changing conditions of the market. In the model area, existing farming systems will be improved towards the development paddy production, cash crops production, and other farm income generating activities. The farmers will have to increase their knowledge and skills to cope with required developments in their farm. The additional knowledge will not only be in farming technology but also in the field of farm management and marketing of farm products.

The development of the farmer cooperative society in the model area will be made in conjunction with the development of WUO with the development of "farmer groups" for specific agriculture development activities. Following the approach of farmer group development, agriculture production groups (APGs) will be established and strengthened. The development of the APGs will be implemented by the elaboration and application of the "group development process" specified in the master plan. In relation to the development of APGs, agriculture credit groups

(ACGs) and buying and selling groups (BSC) will also be established and strengthened.

Agriculture Production Group (APG)

Following implementation of the group process (step 1: group preparation), alternatives farming methods and productions will be defined by the farmers. Farmers having the same activities will be encouraged to group themselves into APG.

In the Vangkhong area potential APGs will be established for:

- Improved rainfed rice production
- Improved irrigated rice production
- Fish culture
- Small animals

The development of the APG will be done by the application of the 4 steps of the group process. One of the most important steps is step 2: planning. In step 2, with the assistance of TFT farm plans are elaborated for the APGs. The farm plan is a tool for bottom up planning which will define the target and objectives of the APG production scheme as well as the different activities and inputs needed to secure the production of the group. TFT will base on the farm plans to elaborate their support service plan. In relation to the support from the TFT to the APG, contact farmers will be designed by the TFT. At the initial stage, contact farmers will be selected from the APG leaders and some potential individual progressive farmers.

Women groups will also be developed as APG especially for the income generating activities such as small animal raising.

Agriculture Credit Group (APG)

Agriculture credit group under the direction of APB will be promoted to increase the productivity in the area. It is anticipated that when the APG has evolved to an acceptable level the ACG will be incorporated in the APG organization structure and then later to the Agriculture Cooperative Structure.

Buying and Selling Group (BSG)

In order to promote local trade, one BSG will be formed for the major commodity such as paddy and animals. The formation of the BSG group will be made by using the same process as for the APG, and if possible at the initial step of the group process (step 1). By doing this, farm plans will already define the producer and the buyer.

However, BSG member will be selected within the farmer community, village middlemen will be encouraged to enter the group.

Develop Legal Framework of Farmer Groups through the establishment and development of Agriculture Cooperatives

It is foreseen that when the APGs have evolved to a certain level where they have enough skill and knowledge to develop their agriculture production according to the demand of the market, the development of the legal framework of APGs will be one important component. Depending on the social and economical conditions, the APGs will evolve to form a formal agriculture cooperative.

The main objective of the WUA to be developed in the schemes is to operate and maintain the irrigation facilities. In addition, production support and marketing services as well as credit service will be also included in the WUA objective. At the initial stage, agriculture support services to the APG will be organized under the structure of the WUA but will later evolve to the structure of the Agriculture Cooperative.

In case those two cooperatives societies (WUA and Agriculture Cooperative) are organized the WUA will be responsible for O&M of irrigation activities, and the Agriculture Cooperative will handle the agricultural support services.

B.5 Support Needed

The support needed for the establishment and development of the activities as specified above will be in the form of training to farmers, contact farmers, group leaders, WUO committee. There will be also additional support in term of technical assistance for participatory construction, group development process and for the legal framework of WUA and agriculture cooperative. The support will be combined with the support needed for the 2 other model areas and will consist of the training activities in following. However, training need would be evaluated during the implementation of the group development process and additional training or support could be proposed by the farmers and TFT in the current of the project implementation.

Development of participatory construction

- Training in participatory construction methods
- Study tour for participatory construction

Development of WUO

- Training WUO Executive Committee in WUO management
- Training water block leaders in water management
- Training pump operators
- Study tour for water block leaders

Development of APGs

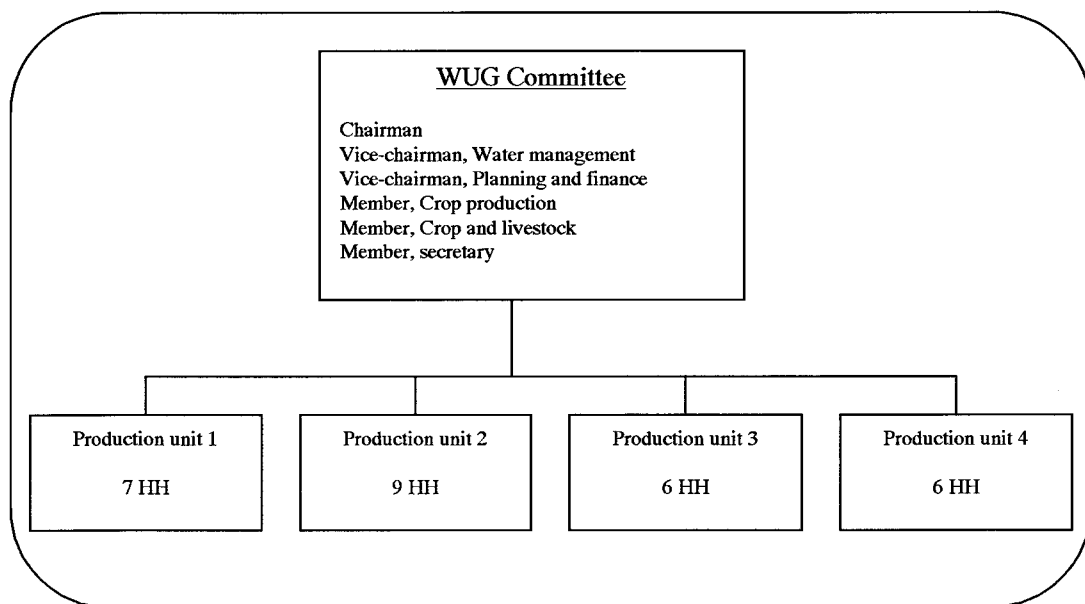
- Training farmers in group development process
- Training farmers in elaboration of farm plans
- Training APGs leaders in group management and leadership
- Training and study tour for contact farmers in establishment of model field
- Training farmers on food processing and new crops production

C. Phonthan Area

C.1 Present Conditions

There is actually one WUG called “Koutapo Farmers’ Group” in the model area. The actual organization consists of farmers from the 3 villages located in the model area.

The water distribution system was originally organized in 2 blocks and distribution is made by rotation by 8 days cycle per block to 4 blocks (one block takes 2 days and rotates). In the course of the study, it was noted that water distribution was not done properly and there is a lot of water losses and drainage back to the stream. The water management system introduced was not applied and continuous flow was observed. The main reasons are the weakness of the WUG and the bad conditions of the irrigation facilities. The actual organization of the WUG is shown as below. However, the system under the management of the WUG has been able to irrigate 32,5 ha during the dry season 1998-1999.



The farmer organization in Phonthan, different from Thongharb, is organized separately from the organization of the village authority. The WUG by-laws and internal regulation was introduced by PAFSO from model that has been developed in the Xebangfai area by SIRAP. However, the legal framework has not been adjusted to the conditions of the area and not correctly applied. This resulted to ineffective group management and water management practice. On the other hands because of the lack of formal legal entity, the internal regulation could not be enforced to the members.

The main farming activity is rainfed paddy plantation in the area. Because the area is not subject to flood, APB provided credit for rainfed paddy. 6 credit group were established within Ban Nakham Tai and Phonthan. About 52 households

benefited from the wet season credit program. Credit was also provided to the production unit of the WUG for dry season paddy production.

C.2 Farmer participation in irrigation and rural infrastructure development

In Phonthan area the reservoir, canals and structures of the Koutapo gravity irrigation system will be rehabilitated and expanded to service additional areas. It is planned that about 90 to 100 ha could be irrigated with the irrigation development, which have been planned in the course of the study. The farmers of the three villages who will benefit from the irrigation development and rural infrastructure development (access road) will own the infrastructure works after the completion of their construction.

According to the elaboration of the PDM for the area the farmers will have to contribute 30% of the construction with labor and local materials (wood poles, etc.) the remaining 70% will be contributed by the Government of Lao PDR (60%) and will be borrowed from APB (10%). The government contribution will be collected as Village Development Funds (VDF) from the beneficiaries.

In order to enhance the ownership of the irrigation system at the early stage of irrigation development farmers will be assisted to design, plan, implement and evaluate the construction works. The costs of construction will be budgeted and kept as low as possible in order to meet the contribution capacity of the national budget and of the farmers' community. In order to reduce certain costs of construction participatory construction methods (communal participatory labor, labor based by village craftsmen, construction by contractor with supervision of farmers) as specified in the master plan will be applied.

It is anticipated that the following participatory methods be applied for the following irrigation and rural infrastructure.

- *Communal labor based*: construction of irrigation canals, maintenance and repair of irrigation canals.
- *Labor based by village craftsmen*: construction of irrigation structures including farm turn out at secondary, tertiary and quarterly canals.
- *Construction by contractor with CSC supervision*: improvement of reservoir structures, construction of roads.

To supervise the construction and to record the real costs of construction as well as the contribution from each party (farmers, GoL, and APB) a village based Construction Support Committee (CSC) will be organized for the infrastructure development. With the support of TFT and SMS from PAFSO the CSC roles and duty will be to:

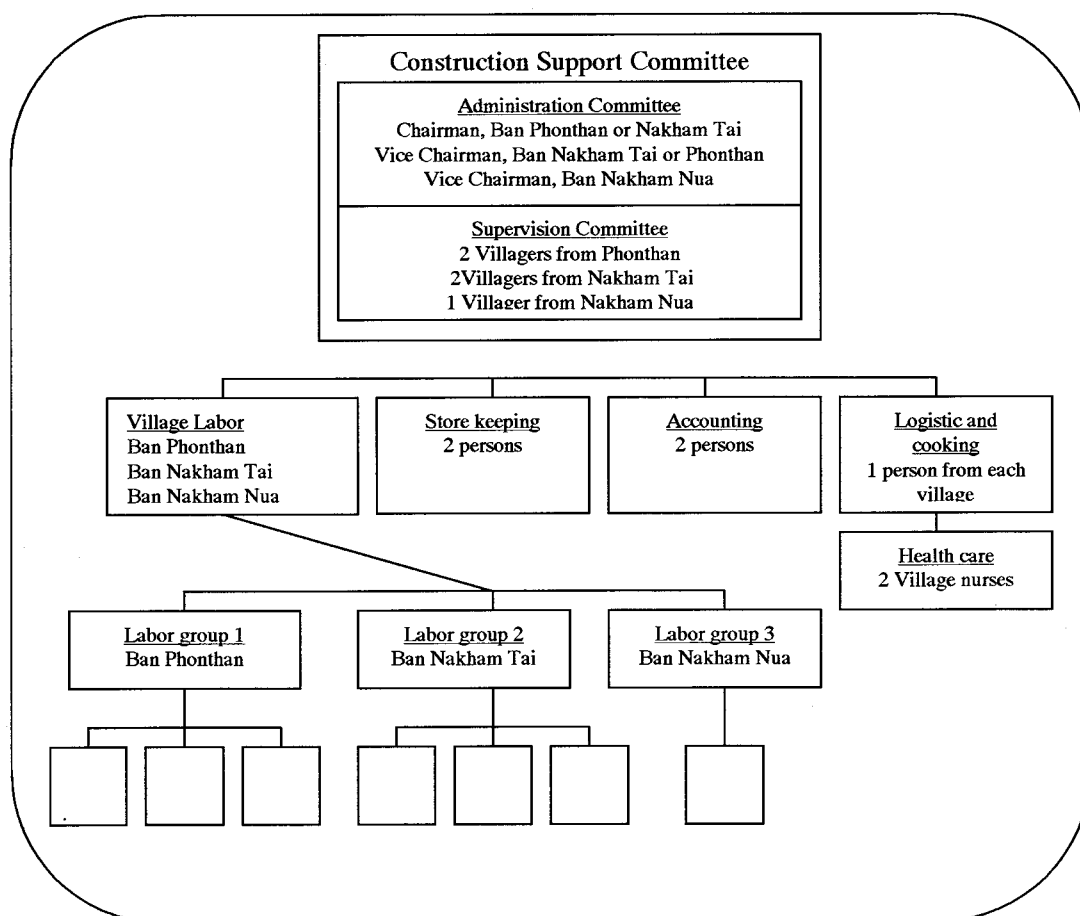
- Plan the construction according to design
- Budget the construction and contribution form each parties
- Select the methods of constructions for each construction items (communal participatory labor, labor based by village craftsmen, contractor)

- Secure construction service from contractors if needed
- Secure labor and construction materials
- Implement the construction
- Monitor and control the construction works provided by the contractor
- Evaluate the construction works
- Conclude the costs of investment and the contribution from each party.

The organization of the CSC will comprise of representatives of the village administrative committee of each village (chief or deputy chief of village) and selected farmers will form the board of the committee. Representatives of each village selected from the future beneficiaries as committee members responsible for the following functions:

- Village labor
- Store keeping
- Accounting
- Logistic and cooking
- Health care (village nurse)

In the organization of the labor, the farmers will have to be grouped into labor group depending on the scope and amount of work to be done for each construction item. The organization chart of the CSC for Phonthan is shown below:



C.3.2 Legalization of WUG to WUA

Further steps will be made to strengthen the managerial capacity of the WUG and to establish the necessary legal framework to sustain the organization. The legal entity of the WUG will be up-graded through the establishment of WUA.

In the model area, the legal entity of WUGs will be strengthened through additional development in their by-laws. The by-laws of the WUG comprise of an Article of Association, an internal regulations covering water management and other issues related to operation of the organization. The development of those legal documents will be the base for the registration of the WUG as WUA with the authority concerned.

It is anticipated that after the improvement of the irrigation facilities and after the operation of the schemes by the WUG for one year, the farmer organization will be upgraded to form one WUA. The legal process to develop WUA as specified in the master plan will be applied.

The following drawing summarizes the schedule of WUG and WUA development in the model area.

Phonitha Area	Shortterm (Years)					Medium-Long term (years)				
	1	2	3	4	5	6	7	8	9	10
Irrigation development										
Strengthen 1 WUG										
Est/Strengthen 1 WUA										

C.3.3 Strengthening the capacity of WUG in Operation and Maintenance

The WUG and then later the WUA will be continuously strengthened to assume the operation and maintenance of the irrigation system which has been re-installed or improved in the area. The important elements for O&M development are:

- To develop the practice of appropriate water management concepts of each irrigation system
- To introduce the concept for cost recovery, and
- To transfer O&M responsibilities and irrigation assets to the farmers' community.

As specified in the master plan, the aim is to initiate the farmers in the elaboration of water management concept (WMC) and irrigation system fee (ISF) of their irrigation scheme. The main activities for developing proper water management practices will be as follows.

- Developing water management concept for each irrigation system.
- Water blocks (or units) will be established at each secondary turn out.
- An Irrigation Service Fee (ISF) will be calculated for each irrigation system

- The WUG will be requested to collect part of the costs for replacement at the initial stage as reserve funds in the form of Village Development Funds (VDF). In the area, VDF annual charge (for paddy production) for fuel pump irrigation will be 200 Kg paddy/ha/year for paddy production, and 100 Kg paddy/ha/year for other crop production. In that case 80% of the annual VDF charge will be transferred to the VDF and 20% pay back to the government.
- In case that the VDF amount calculated under the present Prime Minister Decree is lower than the real capital investment cost of the irrigation scheme, the WUO will have to secure more funds for the replacement or main repair of pump or other infrastructure.
- After the completion of the necessary irrigation development, the WUG will test the water management system for the first dry season paddy production and for the wet season supplementary irrigation.
- On-farm water management practice at block level will be practiced by the WUO.

Following the government policies to transfer irrigation system to farmer organization, the project will ensure that the irrigation and rural infrastructures are correctly transferred to the WUO. In coordination with the above development activities, an IMT process as specified in the master plan will be applied to the irrigation schemes.

In relation to the IMT process, the WUO will be strengthened to assume full financial and legal responsibilities. The upgrading of WUG to WUA will be an important activity. A legal framework will be defined and a legal process developed for the WUO during each period.

C.4 Develop Farmer Capacity in Agriculture Production

As specified in the master plan, the strategy is to develop farmers' capacity in the management of their agriculture production and for them to adapt their production according to changing conditions of the market. In the model area, existing farming systems will be improved towards the development paddy production, cash crops production, and other farm income generating activities. The farmers will have to increase their knowledge and skills to cope with required developments in their farm. The additional knowledge will not only be in farming technology but also in the field of farm management and marketing of farm products.

The development of the farmer cooperative society in the study area will be made in conjunction with the development of WUO with the development of "farmers groups" for specific agriculture development activities. Following the approach of farmer group development, agriculture production groups (APGs) will be established and strengthened. The development of the APGs will be implemented by the elaboration and application of the "group development process" specified in the master plan. In relation to the development of APGs, agriculture credit groups (ACGs) and buying and selling groups (BSC) will also be established and strengthened.

Agriculture Production Group (APG)

Following the implementation of the group process (step 1: group preparation), alternatives farming methods and productions will be defined by the farmers. Farmers having the same activities will be encouraged to group themselves into APG. The size of the APG will depend on the activities and could content from 7-15 members. At the initial stage it is recommended to keep a small number of members in order to fit with conditions of APB in case there is credit support. The function of the APG will then be the same as an Agriculture Credit Group (ACG).

In the Phonthan area potential APGs will be established for:

- Improved rainfed rice
- Improved irrigated rice
- Fish culture
- Small animals
- Cash crops

The development of the APG will be done by the application of the 4 steps of the group process. One of the most important steps is step 2: planning. In step 2, with the assistance of TFT farm plans are elaborated for the APGs. The farm plan is a tool for bottom up planning which will define the target and objectives of the APG production scheme as well as the different activities and inputs needed to secure the production of the group. TFT will base on the farm plans to elaborate their support service plan. In relation to the support from the TFT to the APG, contact farmers will be designed by the TFT. At the initial stage, contact farmers will be selected from the APG leaders and some potential individual progressive farmers.

Women groups will also be developed as APG especially for the income generating activities such as cash crops and small animal raising.

Agriculture Credit Group (APG)

Agriculture credit group under the direction of APB will be promoted to increase the productivity in the area. It is anticipated that when the APG has evolved to an acceptable level the ACG will be incorporated in the APG organization structure and then later to the Agriculture Cooperative Structure.

Buying and Selling Group (BSG)

In order to promote local trade, BSG will be formed for the major commodity such as rice and animals. The formation of those groups will be made by using the same process as for the APG and if possible at the initial step of the group process (step 1). By doing this, farm plans will already define the producer and the buyer.

However, BSG member will be selected within the farmer community, village middlemen will be encouraged to enter the group. It is foreseen that 1 BSC will be formed in each village.

Develop Legal Framework of Farmer Groups through the establishment and development of Agriculture Cooperatives

It is foreseen that when the APGs have evolved to a certain level where they have enough skill and knowledge to develop their agriculture production according to the demand of the market, the development of the legal framework of APGs will be one important component. Depending on the social and economical conditions, the APGs will evolve to form formal organizations such as agriculture cooperatives.

The main objective of the WUA to be developed in the schemes is to operate and maintain the irrigation facilities. In addition, production support and marketing services as well as credit service will be also included in the WUA objective. At the initial stage, agriculture support services to the APG will be organized under the structure of the WUA but will later evolve to the structure of Agriculture Cooperatives.

In case those two cooperatives societies (WUA and Agriculture Cooperative) are organized. WUA will be responsible for O&M of irrigation activities, and the Agriculture Cooperative will handle the agricultural support services.

C.5 Support needed

The support needed for the establishment and development of the activities as specified above will be in the form of training to farmers, contact farmers, group leaders, and WUO committee members. There will be also additional support in term of technical assistance for the legal framework of FWUA and agriculture cooperatives. The support will be combined with the support needed for the 2 other model areas and will consist of the training activities in following. However, training need would be evaluated during the implementation of the group development process and additional training or support could be proposed by the farmers and TFT in the current of the project implementation.

Development of participatory construction

- Training in participatory construction methods
- Study tour for participatory construction

Development of WUO

- Training WUO Executive Committee in WUO management
- Training water block leaders in water management
- Training pump operators
- Study tour for water block leaders

Development of APGs

- Training farmers in group development process
- Training farmers in elaboration of farm plans
- Training APGs leaders in group management and leadership
- Training and study tour for contact farmers in establishment of model field
- Training farmers on food processing and new crops production