

## CHAPTER 16 SURVEY FOR PARTICIPATORY PLANNING

### 16.1 General

Participatory planning (PP) focusing on the following objectives was adopted in the Feasibility Study (F/S) of the priority irrigation schemes.

- a) Formulation of development programmes enabling the positive participation of beneficiaries.
- b) Formulation of sustainable development programmes based on the Participatory Planning (PP).

The survey for PP was conducted based mainly on the Project Cycle Management (PCM), which has been developed by the Foundation for Advanced Studies on International Development (FASID), Japan.

**Outline of Participatory Planning**

	Process	Purposes	Participants/ Executing
PCM Workshop	a) Participation Analysis	● To determine who is involved the problem and who resolves the problem (Set up Target Group)	● Participants of PCM workshop
	b) Problem Analysis	● To prepare Problem Tree by setting up core problem and clarify its cause and result	● Participants of PCM workshop
	c) Objectives Analysis	● To prepare Objectives Tree based on Problem Tree by clarify its objectives and means for solving	● Participants of PCM workshop
	d) Project Selection	● To select potential approach based on the Objectives Tree	● Participants of PCM workshop
Public Meeting	e) Preliminary PDM	● To summarise Preliminary Project Design Matrix (PDM) based on the selected potential approach and reviewing practical contents of the	● Study Team
	f) Evaluation of Preliminary PDM by Farmers	● The preliminary PDM is evaluated its possibility of implementation by farmers	● Farmers
	g) PDM Formulation	● Based on the farmers' evaluation, PDM employed in the F/S is formulated	● Study Team
	h) Action Plan Formulation	● Practical implementation plan of PDM is formulated	● Study Team

\* Project Design Matrix (PDM): Summarised in table with core components of the Project based on the selected approaches

The method is similar to the Logical Framework Approach (LFA) developed by the Norwegian Agency for Development Co-operation (NORAD), which has been introduced to Sri Lanka at the beginning of the 1990s. The Participatory Planning of the PCM method is normally holding workshop by Participants who are related to project and the following procedures are taken as items in the table

a) Participation analysis, b) Problem analysis, c) Objectives analysis, d) Project selection, e) PDM formulation and f) Formulation of Plan of Operation. The process a) to d) is carried out by workshop participants and processes g) and h) are done by the Study Team, because of technique of formulating programme in this Feasibility Study. However the PDM, which is important to be a base of planning, is evaluated by farmers in the irrigation schemes after the Study Team formulate the preliminary PDM.

The process a) to g) is described in this chapter and the formulation of plan of action of h) is in Chapter 17.

## **16.2 PCM Workshop**

### **16.2.1 Outline of PCM Workshops**

The workshops are held in all the priority irrigation schemes at ten locations as shown in the table considering the commanding area and the position of the villages. The participants of the workshops are selected equally from organisation and personnel concerned<sup>12</sup>.

#### Participants of PCM Workshop

- a) Leaders of Farmers' Organisations
- b) Beneficiaries (farmers)
- c) Leaders of community based organisations (Women's Society, Youth Club, Death Donation Society, etc.)
- d) Farmer Animators
- e) Institutional Development Officer (RPM Office, IMD)
- f) Manager of Farmers' Organisation (officer of DOI)
- g) Grama Niladhari

#### Resource Persons

- h) Officers of the IMD, DOI, DOA and DAS
- i) Divisional Secretaries (DSs)

Among these participants, a) to g) are actually carrying out the workshop and the resource persons h) and i) are only to contribute their technical and economical information to the participants. It was considered that the social status of officers and farmers differed largely and discussion with equal status was not possible, if the officers had joined into discussion as Participants. Their presence in the workshop made it possible to share common ideas of the development problem and objectives.

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<sup>12</sup> The participants are selected by the Study Team on discussions with organisations concerned with the Project identified in the implementation plan of the Master Plan. Organisations discussed are FO leaders, Farm Animators, Grama Niladharis, IMD, DOI, ASCs and DSs.

The participants of PCM workshops are shown below and total participants at the PCM workshops in all the irrigation schemes were 490 persons and consisted of 352 males and 138 females.

**Attendees of PCM Workshop**

Schemes	Workshop/ Location/No.	Total Attendees									Grand Total	
		Resources Persons	Participants of PCM Workshops						Total			
			Animators	FO leaders & Members	Women's Association	Youth Club	Others*	Male	Female	Total		
Nachchaduwa Major Scheme	a	8	5	16	-	-	8	24	5	29	37	
	b	8	3	13	-	-	4	16	4	20	28	
	c	7	5	32	1	-	12	29	21	50	57	
Palukadawela Major Scheme	d	14	6	49	8	-	6	42	27	69	83	
	e	16	5	43	-	-	17	53	12	65	81	
	f	12	-	65	-	-	11	67	9	76	88	
Periyakulama Medium	g	9	1	35	2	5	6	30	19	49	58	
Mahananneriya Medium	h	7	4	15	9	-	8	20	16	36	43	
Mahananneriya Minor Schemes (Cascade)	i	12	3	33	7	2	10	44	11	55	67	
	j	7	2	32	3	2	2	27	14	41	48	
Total	10	100	34	333	30	9	82	352	138	490	590	

Others \*: Including Grama Niladhari, Samurudi Animator, Member of Dead Donation Society, Manager of Farmers' Organisation (officer of DOI)

Before the commencement of the workshop, the Study Team explained the objectives of PP and methodology of the PCM workshops to the participants, together with the background and objectives of the Project<sup>13</sup>.

### 16.2.2 Results of PCM Workshop

The results of "Participation analysis", "Problem analysis", "Objectives analysis" and "Project selection" carried out in the workshops are as follows and Problem tree and Objectives tree are in Appendix - N.

#### (1) Participation Analysis

Major organisations and personnel involved in the Project are summarised as follows from the results of the participation analysis in the workshops. The target group is concluded to be Farmers/Villagers in all workshops.



**Explanation of Workshop Method**

<sup>13</sup> In addition, a text book of LFA were provided to the counterpart experts and farmer animators, and "on-the-job" training at the PCM workshops was carried out to them as one of the transfer knowledge.

**The Result of Participation Analysis (Summary of all workshop)**

<b>Beneficiaries</b>	<b>External Organisations</b>	
- Farmers (Target group)	- Dept. of Irrigation	- Divisional Secretariat
- All villagers (Target group)	- Irrigation Management Dept.	- Grama Niladari (GN)
- Farmers' Organisation (FO)	- Dept. of Agriculture	- State banks
- Community	- Dept. of Agrarian Services	- NGO
<b>Internal Organisations</b>	- Agrarian Service Centre	- Private banks
- Farmers' Organisation (FO)	<b>Potential Opponents</b>	
- Women's Society	- Landowners living outside(Nachchaduwa)	
- Death Donation Society	- Landed class – “Purana” paddy field(Periyakulama)	
- Project Management Committee	<b>Others</b>	
- Federation of Farmers' Organisation	- Priests	- Private companies

Special attention was paid to the following two points in the result of the participation analysis.

- a) Farmers' Organisation is raised as the internal organisation in all workshops.
- b) As the potential opponents, Nachchaduwa scheme raised landowners living outside and the landed classes having “Purana” paddy fields in Periyakulama scheme. The former is due to the problem of O&M by seasonal tenants and the latter is due to occupy the irrigation water management.

**(2) Problems and Objectives Analysis**

Following the participation analysis, the problems and the objectives analysis were conducted. Core problems and objectives created by the participants are shown below:

**Core Problems and Core Objectives**

Schemes/	Work shops	Core Problems	Core Objectives
Nachchaduwa Major scheme	a	Low income of farming community	Income in the farming community increased
	b	Improper socio-economic level	Socio-economic level improved
	c	Low social economic level	Social economic level improved
Palukadawela Major scheme	d	Weak economy	Economy improved
	e	Low economic status	Economic status improved
	f	Unsatisfactory economy	Creating suitable economic level
Periyakulama Medium	g	Low socio-economic status of farming community	Economic status of the farmer community increased
Mahananneriya Medium	h	Unsatisfactory socio-economic status	Socio-economic status improved
Mahananneriya Minor Cascades	i	Undeveloped economy	Economy increased
	j	Undeveloped socio-economy of community	Socio-economy of community developed

The summary of the problems analysis and the objectives analysis in all workshops is described in the table on page 16-6. A wide range of major subjects are

covered, namely, “strengthening organisation and community”, “rehabilitation of irrigation facilities”, “improvement of water management”, “increase agricultural products”, “strengthening extension”, “marketing”, “agricultural credit”, “elephant damage”, “land problem/ shortage”, “unemployment”, “social problem as alcohol/drug addict” and “rural infrastructure as hospital, education, latrine.”

Many participants expressed the importance of the farmers’ organisation to solve those problems. It coincides that FO is in internal organisation in the participation analysis. They also raised the improvement of job opportunity, self-employment and small-scale enterprises by FO. However, the participants did not describe in the problem tree and the objectives tree and did not deeply analyse on strengthening of FO.

### (3) Project Selection

Participants identified the following six development approaches: i) strengthening of FOs, ii) obtaining enough water supply, iii) improving agricultural activities, iv) improving social and moral values, v) land development, vi) improving rural infrastructure. Of these, they have selected the following three approaches in all workshops. These are closely connected to each other and they should be implemented at the same time.

#### **Approaches Selected by Participants**

- 1) Strengthening of FOs (including improvement of employment as non-farm income)
- 2) Obtaining enough water supply
- 3) Improving agricultural activities (including marketing and agriculture credit)



**Problems & Objectives Analysis by Participants**



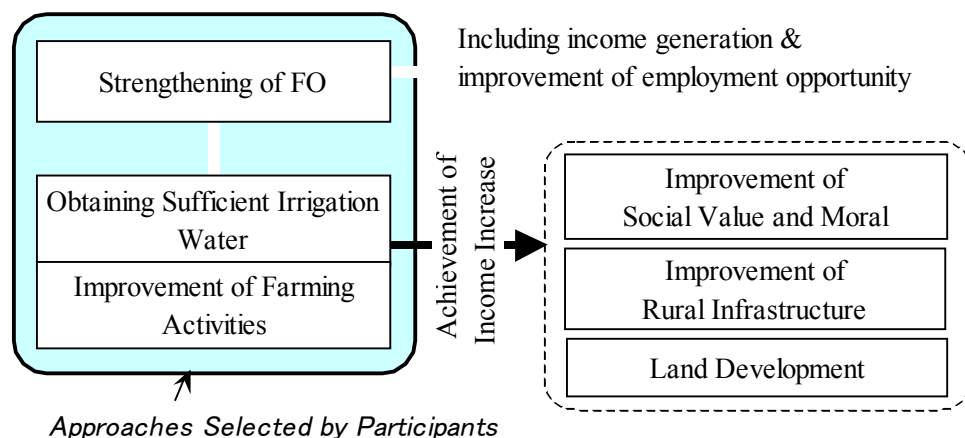
**Project Selection by Participants**

## Summary of Problems and Objectives Analyses

Problem Analysis	Objective Analysis
<p><b>1. Weakness of Farmers' Organization</b></p> <ul style="list-style-type: none"> <li>Weak structure of farmer organizations</li> <li>No organizational coordination</li> <li>Absence of unity</li> <li>Weakness in women's' participation</li> <li>Low concept among farmers (no planning)</li> <li>Communication weakness</li> <li>Political goals in the forefront</li> </ul> <p><b>2. Shortage of irrigation water</b></p> <ul style="list-style-type: none"> <li>Irrigation water is not sufficient</li> <li>Destruction of irrigation system</li> <li>Deterioration of canals</li> <li>Tanks not rehabilitated</li> <li>Cultivating in tank reservation</li> <li>weakness in water management</li> <li>Unsystematic water management</li> <li>FO not systematically functioned</li> <li>Irrigation rules and regulations not enforcement</li> <li>FO's rules are not enforcing</li> </ul> <p><b>3. Low agricultural production</b></p> <ul style="list-style-type: none"> <li>Fluctuating prices of agricultural products</li> <li>Dependent on paddy cultivation only</li> <li>No technical assistance</li> <li>Low yields of agricultural products</li> <li>Infertility of land</li> <li>Wild elephant damaging crops</li> <li>Inability to do cultivation activities at correct time</li> <li>Not receiving agricultural inputs in time</li> <li>No funds for agricultural inputs</li> <li>No agricultural roads</li> <li>Difficulties in marketing agricultural produce</li> <li>Low quality of products</li> <li>Not cultivating mix crop</li> <li>Middlemen buying produce at low price</li> <li>No sales points for product</li> </ul> <p><b>4. Absence of additional income</b></p> <ul style="list-style-type: none"> <li>A society with undeveloped economically</li> <li>Absence of sufficient resources</li> <li>No self employment</li> <li>Inability to use resources</li> <li>Dependence concept to others</li> <li>No opportunity to receive vocational training</li> <li>No saving and loan facilities</li> </ul> <p><b>Decreasing of norm</b></p> <ul style="list-style-type: none"> <li>Decreasing moral values</li> <li>Disunity in community</li> <li>Use of alcohol/drugs</li> <li>Ignorance</li> </ul> <p><b>5. Lack of amenities</b></p> <ul style="list-style-type: none"> <li>Absence of infrastructure facilities</li> <li>Absence of adequate education facilities</li> <li>lack of teacher</li> <li>Difficulty in receiving health services</li> <li>No health facilities</li> <li>No toilet</li> <li>No electricity</li> <li>No facilities for drinking water</li> <li>Inconvenient for the transportation</li> </ul> <p><b>6. Shortage of land</b></p> <ul style="list-style-type: none"> <li>Shortage of land</li> <li>Variations in distribution of land</li> <li>No land for younger generation in scheme</li> <li>Not receiving available land</li> </ul>	<p><b>1. Strengthening of FO</b></p> <ul style="list-style-type: none"> <li>Strengthening structure of farmer organization</li> <li>Farmer participate actively</li> <li>Strengthening in women's participation</li> <li>Impress members of importance of FO</li> <li>Strengthening of joint assistance to farmers by state agencies</li> <li>Acting with plan</li> <li>Establishing good communication system</li> <li>Set up organization to unite farmers &amp; officers</li> <li>Not being slaves to political objectives</li> </ul> <p><b>2. Obtaining enough irrigation water</b></p> <ul style="list-style-type: none"> <li>Obtaining enough water for irrigation</li> <li>Improvement of irrigation system</li> <li>Repairing of irrigation canal system</li> <li>Rehabilitating connected tanks</li> <li>Stopping cultivation in tank reservation</li> <li>Saving water</li> <li>Improvement of water management</li> <li>Activate FO's system</li> <li>Getting enough fund in FO</li> <li>Implementing irrigation rules &amp; regulation</li> <li>Maintaining irrigation system properly</li> <li>Good cooperation among officers</li> </ul> <p><b>3. Improvement of agricultural activities</b></p> <ul style="list-style-type: none"> <li>Receiving proper price for agricultural products</li> <li>Diversification of crop cultivation</li> <li>Cultivation of OFC in paddy land</li> <li>Providing technical assistance</li> <li>Improving productivity of crops</li> <li>Use organic fertilizer</li> <li>Controlling damage by wild elephants</li> <li>Doing agricultural activities at the correct time</li> <li>Providing agricultural inputs in time</li> <li>Obtaining funds for agricultural inputs</li> <li>Building farm roads</li> <li>Creating markets for agricultural produce</li> <li>Selecting proper crops</li> <li>Growing different crops at the same time</li> <li>Stopping middlemen buying goods at cheap price</li> <li>Create sales points for product</li> </ul> <p><b>4. Improvement of Social and Moral Values</b></p> <ul style="list-style-type: none"> <li>Creating self-employment opportunities</li> <li>Providing sufficient loan facilities</li> <li>Creating an economically developed society</li> <li>Providing professional training</li> <li>Introducing alternate saving scheme</li> <li>Developing social morality</li> <li>Creating unity in the community</li> <li>Stopping use of alcohol/drugs</li> <li>Creating awareness</li> </ul> <p><b>5. Improvement of rural infrastructure</b></p> <ul style="list-style-type: none"> <li>Providing infrastructure facilities</li> <li>Creating good educational services</li> <li>Appoint trained teacher</li> <li>Improving health services</li> <li>Establish fully equipped hospital</li> <li>Providing toilet facilities</li> <li>Providing electricity</li> <li>Providing drinking water facilities</li> <li>Convenient for the transportation</li> </ul> <p><b>6. Land development</b></p> <ul style="list-style-type: none"> <li>Solving land problem</li> <li>Consolidation of land</li> <li>Control-ling distribution of land</li> <li>Making use of available land</li> </ul>

Remark: Table above shows a summary of all PCM workshops.

The participants are connecting the strengthening of FOs with the improvement of employment and the increase of non-farming income. It is considered that they are thinking the strengthening through provision of social services by FOs. They also own the following ideas basically on the selection of approaches. Improving social and moral values, and rural infrastructure are able to solve in many things by themselves once they have achieved an improved production activity and an income increase by the strengthening of FOs.



**Basic Idea of Participants on Selecting Approaches**

#### (4) The results of Workshop of Respective Irrigation Scheme

The workshops in the major, medium and minor schemes had almost the same results. The difference was less intention to the catchments conservation with reforestation in the major scheme and high in the medium and minor. The participants recognised that tanks in the medium and minor schemes are the properties of the communities, while there is less such an idea in the major scheme.

### 16.3 Preparation of Project Design Matrix

#### 16.3.1 Preparation of the Preliminary Project Design Matrix by the Study Team

The Study Team has prepared the preliminary PDM based on the results of the PCM workshops. The preliminary PDM of respective schemes is in Table 16.3.1. The workshops were held at ten locations, however, the PDM was prepared for the schemes due to the results within the scheme were almost similar. The core objectives of each workshop and the project title and the project purpose of each scheme are shown below.

### Core Objectives, Project Titles, Project Purposes

Irrigation Schemes	PCM Work-shops	Core Objectives	PDMs	
			Project Titles	Project Purposes
Nachchaduwa Major	a	Income of community increased	Nachchaduwa Irrigation Agriculture & Rural Development Project	Farmers' income of community increased
	b	Socio-economic level improved		
	c	Proper socio-economy promoted		
Palukadawela Major	d	Economic developed	Palukadawela Irrigation Agriculture & Rural Development Project	Proper economic level created
	e	Economic status increased		
	f	Proper economic level created		
Periyakulama Medium	g	Economic status of community improved	Periyakulama Irrigation Agriculture & Rural Development Project	Economic status of community improved
Mahananneriya Medium	h	Socio-economic status increased	Mahananneriya Irrigation Agriculture & Rural Development Project	Socio-economic status increased
Mahananneriya Minor (Cascade)	i	Economic level improved	Mahananneriya Cascade Irrigation Agriculture & Rural Development Project	Socio-economy of community developed.
	j	Socio-economy of community developed.		

As shown the prepared PDM in Table 16.3.1, “Narrative Summary”, “Objectively Verifiable Indicators” “Mean of Verification”, “Important Assumptions”, “Inputs” and “Pre-conditions” are reviewed and the major plans are prepared. The result of qualitative review of “Inputs” was raised since quantitative review has not done at the preliminary stage. “Narrative Summary” was prepared on “Overall Goal”, “Project Purpose”, “Outputs” and “Activities”. “Narrative Summary” of all schemes is summarised as follows.

### Narrative Summary of the Preliminary PDM

Overall Goal	Sustainable development of rural agriculture is achieved. Agriculture productivity in the rural community is improved.
Project Purpose	Nachchaduwa Major Scheme : Income of farmers is increased.
	Palukadawela Major Scheme : Suitable economic level is created.
	Periyakulama Medium Scheme : Economic status of farmer is improved.
	Mahananneriya Medium Scheme : Socio-economic status is improved.
	Mahananneriya Minor Cascade : Socio-economic status is improved.
Outputs	<u>Multi-functional Farmers' Organisation is established and strengthening.</u> <u>Proper Irrigation water is distributed according to the schedule</u> <ul style="list-style-type: none"> <li>- Irrigation facilities are rehabilitated and improved.</li> <li>- Proper water management is conducted by FO.</li> <li>- Irrigation facilities are properly maintained.</li> </ul> <u>Agriculture activity is improved.</u> <ul style="list-style-type: none"> <li>- OFC cultivation is expanded.</li> <li>- Agricultural extension activity is strengthened.</li> <li>- Agriculture inputs and outputs marketing is improved.</li> <li>- Access to credit services is improved.</li> <li>- Deforestation in the catchment area is reduced.</li> </ul>

(continued)



Activities	<p><u>Strengthen Farmers' Organisations</u></p> <ul style="list-style-type: none"> <li>- Conduct awareness and training programmes.</li> <li>- Reorganise FOs to have multifunction.</li> <li>- Carry out income generation through FOs.</li> </ul> <p><u>Supply irrigation water in accordance with schedule.</u></p> <ul style="list-style-type: none"> <li>- Rehabilitate and improve irrigation facilities.</li> <li>- Improve water management.</li> <li>- Strengthen O &amp; M of irrigation facilities</li> </ul> <p><u>Improve agricultural activity.</u></p> <ul style="list-style-type: none"> <li>- Promote OFC cultivation.</li> <li>- Strengthen agricultural extension activity.</li> <li>- Improve marketing of agriculture inputs and outputs.</li> <li>- Improve credit services.</li> <li>- Promote reforestation in the catchment area.</li> </ul>
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This Project purpose comes from the core objectives and is formulated based on the three approaches the farmer selected, namely, i) strengthening farmers' organisation, ii) obtaining sufficient irrigation water, and iii) improvement of agriculture activity. The process from the objectives analysis to the preliminary PDM is described in page 16-10. Following points are supplemented to the preliminary PDM by the Study Team. These are evaluated by farmers at the public meetings.

- 1) "Overall Goal" is to agree with the overall goal of the Master Plan.
- 2) On strengthening FO, as mentioned earlier, the participants pointed out its importance but it was not deeply discussed. Therefore, action plan is set as follows.
  - a) Importance of the awareness programme to the people concerning the Project was pointed out in the group discussion of the Master Plan study but not discussed at the workshops in the priority irrigation schemes. However, it was considered to be important and added together with the training for the strengthening FO into the preliminary PDM.
  - b) The workshop participants were expecting that "obtaining sufficient irrigation water", "improvement of agriculture activity" and vocational training and improvement of the employment are to be carried out by FOs. It is means a multifunctional FO. Therefore "reorganise FO to be capable to multifunction" was imposed and the improvement of employment is to be carried out in "income increase through FOs".
- 3) "Obtaining sufficient irrigation water" was change to "proper irrigation water is distributed according to the schedule" by the Study Team because practical water condition is physically limited by rainfall.
- 4) Countermeasures to elephant damage raised in the objective analysis were excluded from the Project because the required elephant residing area is large, not only the priority irrigation schemes, but as large as province levels.

Results of Objectives Analysis	Preparation of the Preliminary PDM by the Team (Narrative)		The Team's Conclusion on Preparation of the Preliminary PDM
	Outputs	Activities	
a) Farmers' Organization is strengthened.  Employment opportunity is improved. Vocational training is implemented and self-employment is improved (Small-scale enterprise)  Loan is provided for starting business	FO equipped multipurpose function is established and strengthened.	Strengthening Fos Conducting Awareness / Training Programmes. Reorganization of Fos to be multipurpose function. Carrying out income generation through FOs.	Workshop participants did not discuss deeply on strengthening of FOs though pointed out its importance. Participants expected that item b) and c) of the objectives analysis, and income generation, as improvement of employment, are to be carried out by FOs. Therefore income generation will be in FOs' multipurpose function.  Awareness programme was not discussed in workshops. However in the group discussion of the development components of M/P, FO leaders pointed out its importance. It is adopted in the preliminary PDM then evaluated in the public meeting with normal farmers.
b) Sufficient irrigation water is obtained.  Tank and irrigation facilities are rehabilitated Tanks are desilted. Forest of the catchment area is conserved.	Proper irrigation water is distributed according to schedule. Irrigation facilities are rehabilitated and Improved. Irrigation facilities are properly maintained. Water is managed properly by FO.	Providing irrigation water properly according to schedule. Rehabilitation of irrigation facilities.  Strengthening O&M of facilities. Improving water management.	"Sufficient irrigation water is obtained" is amended to "proper irrigation water is distributed according to schedule" by the Team due that actually water is physically limited by rainfall. The ideas of improvement regarding irrigation in the objectives analysis are adopted all into the preliminary PDM since these are concluded technically and economically feasible.  Farm road is included in irrigation facilities rehabilitation. Reforestation is adopted in agriculture activity for forest conservation.
c) Agriculture activity is improved. Crop yield is increased. (Extension services is strengthened) Crop diversification is promoted. Marketing of outputs and inputs material is improved.(including machinery provided by fair Rural credit system is improved.  Elephant damage is decreased.	Agriculture activity is improved. Agricultural Extension is strengthened OFC cultivation is disseminated. Marketing of outputs and inputs material are improved. Access to agriculture credit is improved. Forest devastation in the catchment area is decreased.	Improving farming activity. Strengthening agricultural extension activity. Promoting OFC cultivation. Improvement marketing of outputs and inputs materials. Improvement of credit services.  Promoting reforestation in the catchment area.	The ideas of improvement regarding agriculture in the objectives analysis are adopted all into the preliminary PDM since these are concluded technically and economically feasible.  Farm road is included in irrigation facilities rehabilitation. The improvement of credit services is including loan for self-employment and small-scale enterprise. The countermeasures on elephant damage is excluded for the reason that the project is not possible to cover large area for this problem not only irrigation schemes but also district or provincial levels.
d) Social value/ Moral are improved. Moral and unity of community improved. Alcohol addicts are decreased.	<div> <div></div> <div>Approaches selected by workshop participants</div> </div> <ol style="list-style-type: none"> <li>Preliminary PDM is prepared based on the objectives selected by participants as; a) Fos strengthened, b) Sufficient irrigation water obtained and Agriculture activity improved.</li> <li>Objectives analysis and preliminary PDM in this table is the summary in the priority irrigation schemes, basic method is to prepare the preliminary PDM is to prepare based on the objectives analysis.</li> <li>Workshop is held 10 times and the objectives analysis and selection of approaches carried out in each workshop. Project is to be implemented based on respective scheme and the preliminary PDMs are prepared for each scheme. Workshops in the same scheme were almost the same results, so that problems are concluded to be common for whole scheme.</li> <li>Difference among the schemes is that forest conservation in the catchment area was discussed in the medium and minor schemes but not in the major schemes.</li> </ol>		
e) Rural infrastructure is improved. Living/Sanitary facilities are improved. (domestic water supply & Latrine) Electricity is provided. Educational facility is improved.			
f) Land problems are solved. Farmland is obtained. Land is fairly distributed.			

PDM is prepared for each scheme

Irrigation Schemes	Workshop Holding	PDM Prepared
Nachchaduwa (Major)	3	1
Palkadawela (Major)	3	1
Periyakulama (Medium)	1	1
Mahamannneriya (Medium)	1	1
Mahananneriya (Minor Cascade)	2	1
Total	10	5

### Result of Objectives Analysis and Preparation of Preliminary PDM

### 16.3.2 Review and Evaluation of the Preliminary Project Design Matrix by Farmers

Public meetings were held at the field level, to allow the farmers to review and evaluate the PDMs. The evaluation had the following two major objectives.

- Determining whether the preliminary PDM is acceptable to be a development project for the entire community or not.
- Reviewing whether the raised action plan is possible to practice.

Number of holdings and participants and method of the public meeting are as follows.

**Participants and Method of the Public Meeting**

	Location	No. Held	Participants			Remark
			Male	Female	Total	
No. of Location & Participant	Nachchaduwa (Major)	2	34	9	43	Periyakulama scheme could not hold the meeting due to the planting time. Generally the participants were less for busy in the field works.
	Palukadawela (Major)	1	51	2	53	
	Periyakulama (Medium)	-	-	-	-	
	Mahananneriya (Medium)	1	17	4	21	
	Mahananneriya (Minor Cascade)	1	19	11	30	
	Total	5	121	26	147	
Participant	FO leaders, Farmers, Farmer Animators					Discussion was carried out mainly farmer's initiative.
	The Study Team (Farmer organisation expert)					
Method	Explanation of the preliminary PDM. Free discussion method was employed on the possibility of the implementation by farmers' initiatives.					

The results of the public meetings are in Appendix-N and the summary of entire meeting is described in page 16-12. Farmers were able to understand the part of "Narrative Summary" but it seemed that "Objectives Verifiable Indicators" and "Means of Verification" were not fully understood. The public meeting, therefore, conducted mainly with a part of "Narrative Summary." The evaluation in the meeting is concluded as follows.

- The participants have accepted all items of the preliminary PDMs. The contents (development approaches) correspond to the farmers' ideas, and it would be the development plan for the entire community.
- Farmers raised many opinions regarding the possibility of implementation of the approaches by farmers. For instance, they have agreed with pre-condition of accomplishment of the rehabilitation works to the outputs of "Irrigation facilities are properly maintained." It is considered to be possible since they have agreed to the outputs.

The participants of the public meeting also accepted that the items supplemented by the Study Team of overall goal and the plan of approaches on the strengthening of FOs.

## Result of Public Meeting (Summary)

Preliminary PDM	Opinion of Participants	Comment of the Team
<b>Overall Goal</b>		
1.1 Sustainable development of rural agriculture is achieved.	Agreed: Better to exclude agriculture	- Likely to be difficult to image real situation though it was agreed.
1.2 Agricultural productivity in rural community is improved.		
<b>Project Purpose</b>		
2.1 Nachchaduwa (Major): Farmer's income is increased.	Agreed	<i>(Public meeting was not held in Periyakulama medium scheme due to busy time with field works.)</i>
Palukadawela(Major): Proper economic level is created.	Agreed	
Periyakulama (Medium): Farmer's economic status is obtained.	-	
Mahananneriya(Medium): Socio-economic status is improved.	Agreed	
Mahananneriya (Minor Cascade): Socio-economic status is improved.	Agreed	
<b>Outputs</b>		
3.1 Farmers' Organization with multipurpose function is established and strengthened.	Agreed : Leader of farmer does not feel wrong to multipurpose function that has already been acting as representing the area.	- Almost farmers agreed with multifunctional FO. Some FOs is already functioning for represen- tatives of the community. And FOs, work only for water management also recognized this importance. Therefore it is possible to set up Multifunctional FO.
3.2 Proper irrigation water is distributed according to schedule		
Irrigation facilities are rehabilitate and improved.	Agreed : Participant criticized officers and contractors on the past rehabilitation works. It is necessary to maintain discussion and transparency before the commencement of the work.	- All agreed on irrigation issues. - Transparent project is important. - Turnover of O&M required with satisfactory rehabilitation in the major schemes. Farmers willing to maintain D and F-canals.
Proper water management is carried out through FOs.	Agreed : It is necessary to consider those who are not in the meeting and tenant farmers.	
Irrigation facilities are properly maintained.	Agreed : Rehabilitation works should be completed. Unilateral turnover was not accepted by farmers. However farmers think that they should manage O&M by themselves. (Major)	
3.3 Agriculture activity is improved.		
Agricultural extension activity is strengthened.	Agreed: Lack of knowledge and technology for their needs to implement. So need proper education/training programme.	
OFC cultivation is expanded.	Agreed: Elephants will damage OFC. However farmers has been practiced driving them away by group in rotation for paddy. OFC could cultivate but select proper land at first.	- Countermeasures for elephant damage is required for OFC promotion.
Marketing of input material and outputs is improved.	Agreed: Method of co-operative purchasing is good. if proper amount of products are available, merchant will come to village.	- Cooperative purchasing is known well, some of farmers have enough experience.
Access to credit services is improved.	Agreed: Samurudi and others are providing group loan but their systems are not fair. Such system should be utilized by needy.	- Improvement of credit services is required not only in agriculture but also for unemployment.
Forest devastation in the catchment area is decreased.	Agreed: Muddy water enters directly into tank. Necessary to work together to maintain community resources.	
<b>Activities</b>		
4.1 Strengthening Farmers' Organization.		
Conducting awareness/training programmes.	Agreed: Farmer are understand the necessity of awareness programme through their experience. They said, need the programmes for officers.	- Deep discussion was not done about strengthening of FOs. Items of approaches, written in the left are proposed based on M/P and almost participants agreed with this proposal. - Awareness programme for officers is required by farmers.
Reorganizing to be multipurpose function FO.	Agreed: Recently they hold joint meeting FO and DDS after the PCM. Various problem is raised but discussing together. They like to be multipurpose FO.	
Promoting income generation through FO.	Agreed: Young people are doing brush making, fish cultivation. Since most activities is related to farming, the propose is good.	
4.2 Supplying proper irrigation water according to schedule.		
Rehabilitation and improvement of irrigation facilities.	Agreed: Necessary to share information, since farmers know well their problems related irrigation.	- Rehabilitation of irrigation facilities, O&M, water management are agreed by all. - To keep communication between executing agency and farmers is important. For instance, It would be considered that farmer could understand reality and take their appropriat responsibility through direct discussion with farmers, if Project could not respond all their request. - Pointed out that awareness programme for farmers is necessary.
Improving water management.	Agreed: As facilities are not properly functioned, they manage water in their own way through their experience. Leaders think, all farmer must understand proper water management.	
Strengthening O & M of irrigation facilities.	Agreed: The gap of the idea on O&M between FO leaders and ordinary farmers is large. Regarding O&M, all must share common ideas. Awareness for ordinary farmer is important.	
4.3 Improving Agriculture activity.		
Strengthening agricultural extension activity.	Agreed: Farmers expecting practical training, for receive technical guidance in the field. (former T&V system)	- T&V is proposed by farmers but it is opposed to the Government policy and is not possible. But extension services will be possible. - Improvement of credit services is important for efficient water management.
Promoting OFC cultivation.	Agreed	
Improving marketing of in- puts material and outputs.	Agreed	
Improving credit services.	Agreed: There is many farmer who are not cultivation in time due to lack of finance. If this programme start, they can cultivate in proper time.	
Promoting reforestation of catchment area.	Agreed	

### 16.3.3 Preparation of the Project Design Matrix Adopted in F/S

The participants of the public meeting have accepted almost all the items of the Outputs and Activities of the preliminary PDMs as mentioned before. Therefore, the PDM adapted to respective priority irrigation scheme has been employed as the preliminary PDM. The details of PDM of respective scheme are described in Chapter 17.

#### Narrative Summary of the PDM adopted in F/S

Overall Goal	Sustainable development of rural agriculture is achieved. Agriculture productivity in the rural community is improved.
Project Purpose	Nachchaduwa Major Scheme : Income of farmers is increased. Palukadawela Major Scheme : Suitable economic level is created. Periyakulama Medium Scheme : Economic status of farmer is improved. Mahananneriya Medium Scheme : Socio-economic status is improved. Mahananneriya Minor Cascade : Socio-economic status is improved.
Outputs	<u>Multifunctional Farmers' Organisation is established and strengthening.</u> <u>Proper Irrigation water is distributed according to the schedule</u> - Irrigation facilities are rehabilitated and improved. - Proper water management is conducted by FO. - Irrigation facilities are properly maintained. <u>Agriculture activity is improved.</u> - OFC cultivation is expanded. - Agricultural extension activity is strengthened. - Agriculture inputs and outputs marketing is improved. - Access to credit services is improved. - Deforestation in the catchment area is reduced. - Damage by elephant is decreased.
Activities	<u>Strengthen Farmers' Organisations</u> - Conduct awareness and training programmes. - Reorganise FOs to have multifunction. - Implement income generation and social services through FOs. - Construct Farmer Centres. <u>Supply irrigation water in accordance with schedule.</u> - Rehabilitate and improve irrigation facilities. - Improve water management. - Strengthen O & M of irrigation facilities <u>Improve agricultural activity.</u> - Promote OFC cultivation. - Strengthen agricultural extension activity. - Improve marketing of agriculture inputs and outputs. - Improve credit services. - Promote reforestation in the catchment area. - Establish surveillance system of wild elephant in FOs.

The preliminary PDM was modified by the Study Team as follows:

- 1) The countermeasures to elephant damage had been excluded in the preliminary PDM due to the large target area. However the opinions of the participants were that it is necessary for OFC cultivation and suggested to expand their practices (guarding by group) carrying out in paddy cultivation. The countermeasures of strengthening guarding

system by FO and the use of thunder-flash and cracker are employed, though these are expedient treatments for reducing damages.

- 2) Improvement of Social values and morals such as resolving alcohol addiction was discussed in the problem analysis and the objectives analysis but it was not selected in the approaches. It was also not discussed in the meeting, however, it was proposed as one of the FOs' multifunctional services for the serious community problem that the women are especially facing.
- 3) The construction of the Farmer Centre, as a office for FO and Farmer Animator, was proposed in order to maintain communication for strengthening of FOs with the official institution and among the community.

## **16.4 Results and Evaluation of Survey for Participatory Planning**

### **(1) Results of the Survey for the Participatory Planning**

The participants of the PCM workshop selected i) strengthening of FO, ii) obtaining sufficient irrigation water, and iii) activating agriculture activities for the development approaches in the priority irrigation schemes. These approaches were almost the same for all scheme. Based on these results, the preliminary PDM was prepared by the Study Team and then it was evaluated by farmers in the public meeting. The result of the evaluation was that almost all the preliminary PDM was accepted by farmers. The preliminary PDM was adopted to the PDMs of the irrigation schemes for representing entire irrigation scheme and possible to implement by farmers. The contents of the development plan for the priority irrigation schemes are prepared based on this PDM and for preparing the action plan.

### **(2) Attitudes of Normal Farmers toward the Project**

It is important for farmers to realise “Core of the project is beneficiaries” at stages of survey and formation of the plan. It is believed that the participants of the workshop in this survey have realised this. However, in the public meeting, it was seen that normal farmers who have not participated to the workshop tend to only passively accept the plan. Therefore awareness activity of “The core is beneficiary” to the entire beneficiary is needed. This activity is to be carried out for awareness of normal farmers through FOs as the awareness programme for strengthening of FOs.

### **(3) Validity of the Approaches Selected in the PCM Workshop**

By the result of PCM workshop, the core problem and the core objective are

concluded to be “Low income of farmers” and “Farmers income is increased” respectively. These coincided with the results of the RRA workshops and it is considered that these results are problems that farmers in Sri Lanka are commonly facing. In 1984, the Ministry of Lands and Land Development carried out village workshops to involve participation of the settlers in the planning process. The results of these workshops and those of the PCM workshops are similar to the Study Team. Although it is difficult to compare simply because the purpose, methodologies, socio-economic background, and composition of participants are different, it is considered as common problem to a certain extent in rural communities of Sri Lanka and also in the Dry and Intermediate zones outside of the Study area of the Master Plan.

#### (4) Problem and Countermeasures of PCM Workshop

Workshop by PCM method is carried out with certain rule of writing one situation occurred by missing something onto a piece of card. In accordance with this rule, participants are writing in the cards, then continuing discussion by all for problem analysis and objectives analysis. The discussion is logically carrying on as “Cause and Result” or “Means and Objectives” on the prepared cards. The participants in the workshops were mostly farmers and the following problems were observed.

- a) Participants, especially farmers, are not able to describe according to the workshop’s rule.
- b) The relation of “Cause and Result” or “Means and Objectives” is not understood in the problem and objectives analysis.
- c) Some farmers are not familiar with a large workshop (50 to 60 participants) and hesitated to speak in some cases.

The Study Team has repeatedly explained items a) and b) but the farmers could not understand the rule, and were unable to speak. The participants, who understood the rule as farmer animators, spoke more. The workshop on item a) and b) is considered to be too much a logistical way of thinking for the farmers.

In order to solve these problems, the workshops were carried on as follows by partially imposing the CAP (Community Action Planning and Management) method, which is generally utilised in Sri Lanka.

- 1) Participants are divided into small groups of 5 to 8 members. There is no specific standard on grouping. By adopting such method, member has been changed to be equal speaking and active discussion by situation observing group.
- 2) Let them freely discuss in each group and writing all topics on A1 size

paper. Then the representative of the group presents topics discussed for all and the participants ask questions and are answered by the representative or the group member. This can share the topics of respective group with all participants.

- 3) Written contents of problem/objectives on A1 paper are rewritten to cards, item by item
- 4) Problem/objectives tree is prepared by sticking those cards according to the subjects. The cards are organised in order from core problem/objectives downward and unnecessary cards are eliminated by agreement of the participants and cards are also added if necessary.
- 5) All participants discuss and conclude on prepared problem/objectives tree at last.



**Discussion by small group**



**Presentation by group representative**

This method could be used to conduct workshops smoothly in the Survey and obtained the outputs. The merits of this method are:

- a) Possible to discuss by farmers' way of thinking (free discussion)
- b) Easy to speak by dividing into small groups (as normal conversation size)
- c) Easy to rewrite from A1 paper on which are written all subjects of discussion (pick up one by one)
- d) The trees with sticking all cards are easy to prepare and to see (similar to crossword)

Further application of PCM or LFA as participatory planning is expected in the development project in Sri Lanka. This method is recommended for a solution when problem takes place in PCM workshop.



## **16.5 Survey and Investigation of Irrigation Facilities by Farmers**

### **16.5.1 Method of Survey and Investigation**

The field investigation to identify condition of the facilities were carried out by the farmers in order to promote farmers' participation in formation of the rehabilitation and improvement plan, and to reflect their needs to the plan to the maximum extent. The survey covers the following items for the D & F-canals for major and medium irrigation schemes, and all facilities in minor irrigation schemes:

- Lists of irrigation facilities to be rehabilitated / improved,
- A map locating the facilities (sample of the map in the next page),
- Description and work quantities of rehabilitation / improvement, such as canal length and number of structures,
- Necessary input with estimated cost, like labours, cement, and aggregates, and
- Amounts that the farmers can share in the works.

At first, after the PCM workshop, an explanation of how to conduct the survey was conducted by the Study Team. Subsequently, the farmers proceeded the survey and investigation under assistance of the government staff like farmer animators. The survey was complete in 28 FOs. The details of survey results are shown in Appendix - X.

### **16.5.2 Evaluation of Survey and Investigation**

#### **(1) Evaluation of Farmers' Capacity for Survey and Investigation**

The evaluation on the farmers' capacity for plan formulation was carried out based on the following items:

- Illustration of FO area map and indication of the rehabilitation locations on the map.
- Description of rehabilitation plan for each location.
- Details of rehabilitation, such as length of canal and number of structures.
- Work quantity calculation and cost estimate.

The results of the evaluation are shown in Appendix P and summarised below.

The farmers, in general, are able to indicate the rehabilitation locations on the map and to describe the concrete rehabilitation and improvement plan for each location.

There are some needs to improve the farmers' capability on the cost estimates. It was also revealed that the FO office bearers, who have ever worked in contractors, had experiences to take the quantity cal-

culatation as well as the cost estimates.

Taking into consideration these findings, it is concluded that the planning and design of D and F canal can be carried out by the farmers themselves with a proper technical guidance by the government staff.

## (2) Evaluation of Results of Survey and Investigation by Farmers

The results of field verification by the Study Team revealed that prioritisation of the rehabilitation works were incorporated in the farmers' plan. It was also observed that the farmers idea and intention on the rehabilitation of the irrigation facilities and farm roads were within the appropriate ranges. Therefore, in this Study, it is concluded that the rehabilitation and improvement plan for D- and F-canals are formulated based on the farmers' idea.

Further, almost all FOs replied that 10% of the construction cost could be contributed supplying labour forces. This fact indicates that the farmers are familiar with the contribution system applied to the World Bank and ADB assisted projects.

