FINAL REPORT

Submitted to

INTERNATIONAL IRRIGATION MANAGEMENT INSTITUTE

in Connection with

Institution – Building Process of Five Major Irrigation Schemes in Sri Lanka

by

TEAMS

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Consultants in Technology, Management & Development Studies
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28 September 1990

STUDY ON THE INSTITUTION-BUILDING PROCESS UNDER THE ISM PROJECT, SRI LANKA

The study reported herein was carried out by TEAMS under a research subcontract with IIMI. The study was funded by the United States Agency for International Development (USAID) under a Cooperative Agreement between USAID and IIMI (Agreement Number 383-0080-A-PG-7040-00). Under this Agreement, IIMI is responsible for managing the applied research component of the Irrigation Systems Management Project. Overall guidance and coordination is done through the ISM Project Research Advisory Committee, chaired by the Director of the Irrigation Management Division.

IIMI takes this opportunity to express its appreciation to USAID for its support, including its close involvement in guiding and evaluating the study. IIMI also wishes to express its great appreciation to the officials of the Irrigation Department and Irrigation Management Division, at both head office and at project levels, and to the farmers who cooperated in the study. IIMI also thanks TEAMS for having carried this study out under very difficult conditions during the height of the 1989 disturbances in rural areas.

The views presented in this report are those of TEAMS alone. They do not necessarily represent the views of IIMI, or of the agencies that have cooperated with the study. The recommendations given in the report are presently under consideration by the Irrigation Management Division and Irrigation Department.

IIMI and TEAMS would welcome comments and criticisms of the findings of this report. Since the report documents what is proving to be a very important "success story" having important implications for future strategies for participatory irrigation management, we do feel it is an important contribution.

Sincerely,

Doug Merrey

Douglas J Merrey
Head, Sri Lanka Field Operations

TEAMS (Pvt) Ltd,
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Our Ref: DS/07/88 13th September, 1990.

Dr. Douglas Merrey,
Head, Sri Lanka Operations,
International Irrigation Management Institute,
107, Havelock Road,
Colombo.

Dear Dr. Merrey,

Study of Institutional Building Under ISM Project

Herewith we are submitting 3 copies of the Final Report of the above study.

We take this opportunity to pay our gratitude to the members of: IMD, ID, ISMP, USAID and IIMI Sri Lanka Operations including yourself for providing assistance and guidance to complete this study successfully.

Yours truly,

Wimal Gunawardena
Team Leader

EXECUTIVE SUMMARY

The present Study investigates the process of institutional building under ISMP with special reference to Farmers' Organisations. The Terms of Reference (TOR) was formulated by the International Irrigation Management Institute (IIMI) which played a key role in directing this study in which the emphasis was on qualititative insight rather than quantitative indicators.

The scope of the study and the methodology of work are briefly summarised in Chapter I. The observations which emerged from the investigation phase of the study are presented in the Report in terms of 3 broad areas, namely: (i) Functioning of the Farmers' Organisations, (ii) Functional Environment and (iii) Catalytic Process of Institutional Building.

Chapter 2 of the report highlights the overall observations on the functioning of Farmers' Organisations (FOs) after a brief review of the evolution of F.OO. The chapter discusses the real world situation relevant to the area of authority of FOs; functioning of FOs at FC, DC, Project and District Levels.

Towards the tail-end of this study (ie end of 1989) there were many changes taking place in the area of functioning of farmers' organisations quite fast. Chapter 3 aims to condense these observations while indicating the observations pertinent to the farmers' organisations in Pilot Areas of the ISM Project.

The observations relevant to the Functional Environment of Farmers Organisations (FOs) are given in Chapter 4. These observations are presented in terms of the immediate surroundings of FOs, inter-institutional background, historical and situational changes, national policy environment and socio-economic factors.

One of the key areas of investigation in this study is the catalytic process which aims to develop farmers organisations within ISMP and the important observations are presented in Chapter 5. The presentation is in terms of the

role of change agents, education and training activities, and the function of monitoring, evaluation and feed-back.

The TOR clearly indicated that the study needs to investigate the Ridi-Bendi Ela Scheme in a way different to the other Schemes of Polonnaruwa due to its apparent functional superiority. The actual observations of this scheme are given in **Chapter 6.**

The overall conclusions emerging from the study are presented in **Chapter 7.** These conclusions are presented in association with necessary comments of rationalisation in order to bridge the gap between the observations given in the previous chapters' conclusions which were subsequently derived.

The study revealed that the ISMP has taken a major step forward in building farmers' organisations initiated by the INMAS programme. Although the action taken and the contributions made by the ISMP are reasonable, many areas need further thought and action as an attempt to improve effectiveness.

At all levels FOs are functioning more as informal groups for discussion, complaint and representation rather than as purposeful organisations with functional vigour and institutional cohesiveness for 'action'. Although the farmers are being 'mobilised' for representation they were found to be far away from being 'organised' for joint irrigation management with State officials. It was also found that both "thinkers and actors" were faced with difficulties to recognise clearly the nature and scope of joint-management and the roles of users and officials in such management action.

The recommendations emerging from the present study are presented in **Chapter 8.** These recommendations were carefully formulated with the view of improving the ongoing processes of formation of farmers' organisations, functional environment and the catalytic process. In identifying these institutional improvements care was taken to suggest essential and minimum recommendations which are a combination of structural, procedural and attitudinal changes which ISMP may not be able to resist in its path to achieve institutional strength while gaining user support.

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1. INTRODUCTION TO THE STUDY AND WORK DONE

1.1 Scope of the Study and the Methodology Used

The Irrigation Systems Management Project (ISM Project) commenced in 1986 as a follow-on from Gal-Oya Rehabilitation work, with the assistance provided by the USAID. The project covers 4 major irrigation schemes in Polonnaruwa District - Parakrama Samudraya (PSS), Giritale, Minneriya and Kaudulla and also Ridi-Bendi-Ela in Kurunegala District. The ISM Project involves repairing and upgrading the physical system and also as an integral component, the formation of Farmers' Organizations (FOs) and their involvement in irrigation systems management as an essential part of the institutional building process. The present study investigates the institutional building process of the ISM Project covering the 5 project areas described above with special reference to Farmers' Organizations.

This work was carried out by TEAMS as a research project prepared and monitored by the International Irrigation Management Institute (IIMI).

The scope of the overall study can be summarised as follows:

(i) To make an **independent and objective assessment** of what has been done so far in PSS, Giritale, Minneriya and Kaudulla in terms of institutional building related to Farmers' Organizations (FOs).

(ii) To evaluate the institutional strength of FOs in Ridi-Bendi-Ela in terms of actual performance and to identify any lessons that could be learnt from this scheme which might be applicable in the schemes in Polonnaruwa or else where.

(iii) To investigate whether there are ways in which the institutional building process could be made more effective while testing out other possible innovations which can improve the process.

The Terms of Reference (TOR) prepared by the IIMI specified that the study should focus on achieving the above 3 objectives by undertaking qualitative and quantitative research based on indepth observations rather than quantitative analysis using formal questionnaires.

With a view to achieving the specified study objective with an orientation towards quantitative observations, the consultants made use of a methodology of work based on the System Approach and in particular an adaptation of the Soft Systems Methodology (SSM). The methodology used involved 7 Tasks which can be summarised as in **diagram 1**.

According to the Terms of Reference given by IIMI the study involves investigating the institutional development of PSS, Kaudulla and Minneriya for a period of 4 months and Giritale and Ridi-Bendi-Ela over a period of 6 months. The main investigation of this study was carried out by employing small groups of Field Investigators with close and continuous participation of the team of consultants. The focus given here is to conduct different types of in-depth observations in order to gain "qualitative insight" rather than "qualitative indicators".

1.2 Information Gathering Process

The need to capture information without distorting reality stands out in the methodology adopted in this study as presented in **diagram 1**. In order to fulfill the tasks covering the scope of the study, the type of information needed was mostly qualitative. The information gathering process began with Task 1 (Preliminary Analysis), where broad-based information which can highlight different dimensions of development of Farmer Organisations (FOs) and the relevant issues was collected.

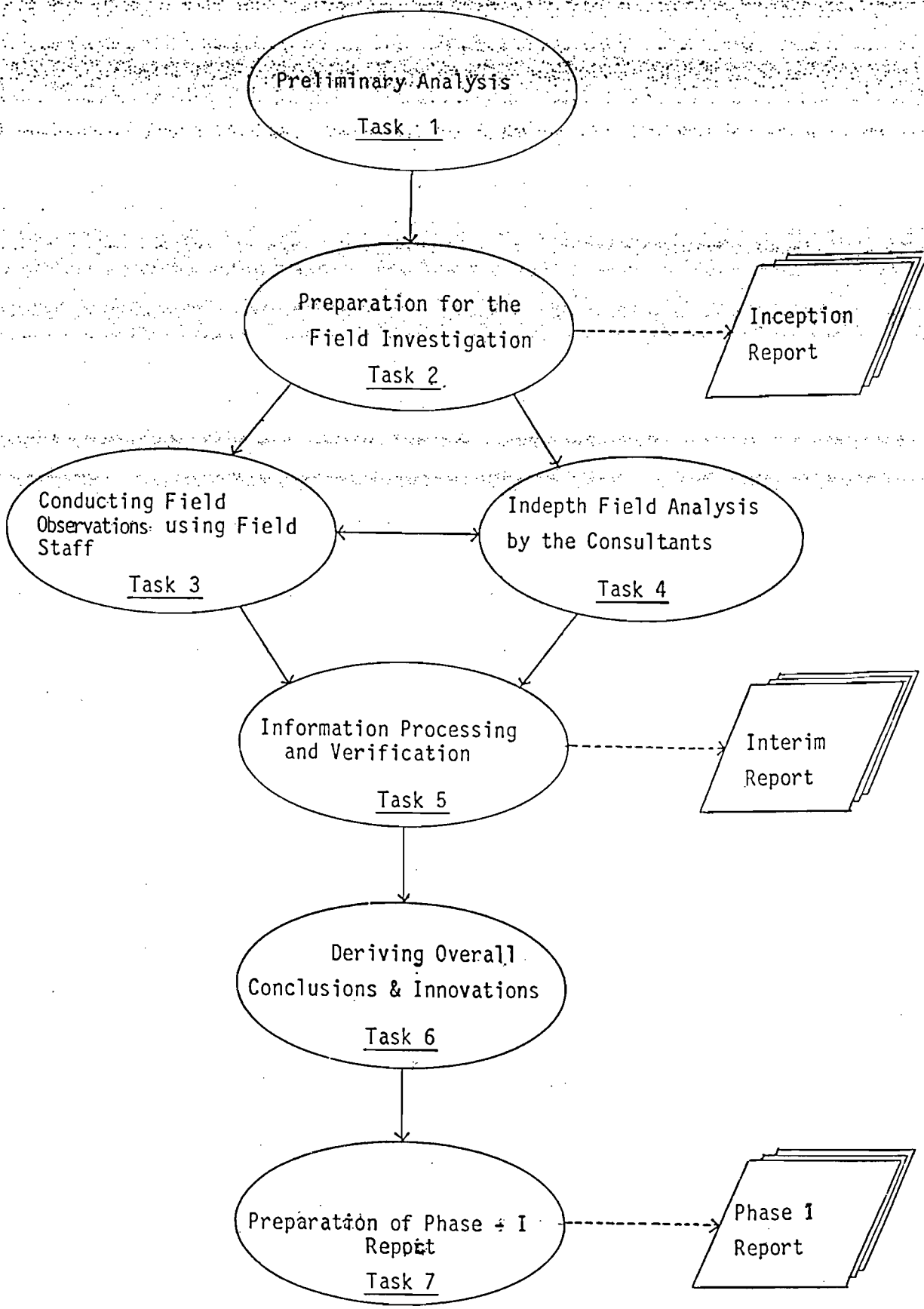

Diagram 1 : Flow chart of the Work Plan

The information gathering process was based on first collecting primary information which can indicate the different dimensions relevant to the development of Farmer Organisations (FOs) and the corresponding issues in order to fulfil the objectives of the study. At the inception of the study it was recognised that in order to make objective observations on different facets of the development of FOs while comprehending the pertinent issues, the process of observation and information gathering should be based on the on-going activities of the farmer community. For this purpose the crop-calender was taken as the foundation.

The essence of observation and information gathering of this study was seen as a dynamic process which permitted the investigators to analyse in-depth the issues which were previously identified while recognising some new issues for subsequent analysis. Hence the information collection process was a cyclic process as summarised in diagram 2. This particular process embraces certain important characteristics of a useful in-depth investigation as it repeats until the information gathered on a particular issue is exaustive while the underlined issues themselves are adequately surfaced.

The primary sources of information were location based - ie. the selected 4 schemes of Polonnaruwa, and Ridi Bendi Ela of Kurunegala District. The information collection process was designed in such a way that it can pick information originated at different levels such as Field Canal Groups, Distributory Canal Level Organisations, Project Committees, farmer leaders, officials, etc. The methods of collecting information were: Objective Participant Observations, Focus Group Discussions and Interviews. Information was collected in terms of the different activities of the crop-calender using different institutional levels while utilising a chronological chart as presented in diagram 3.

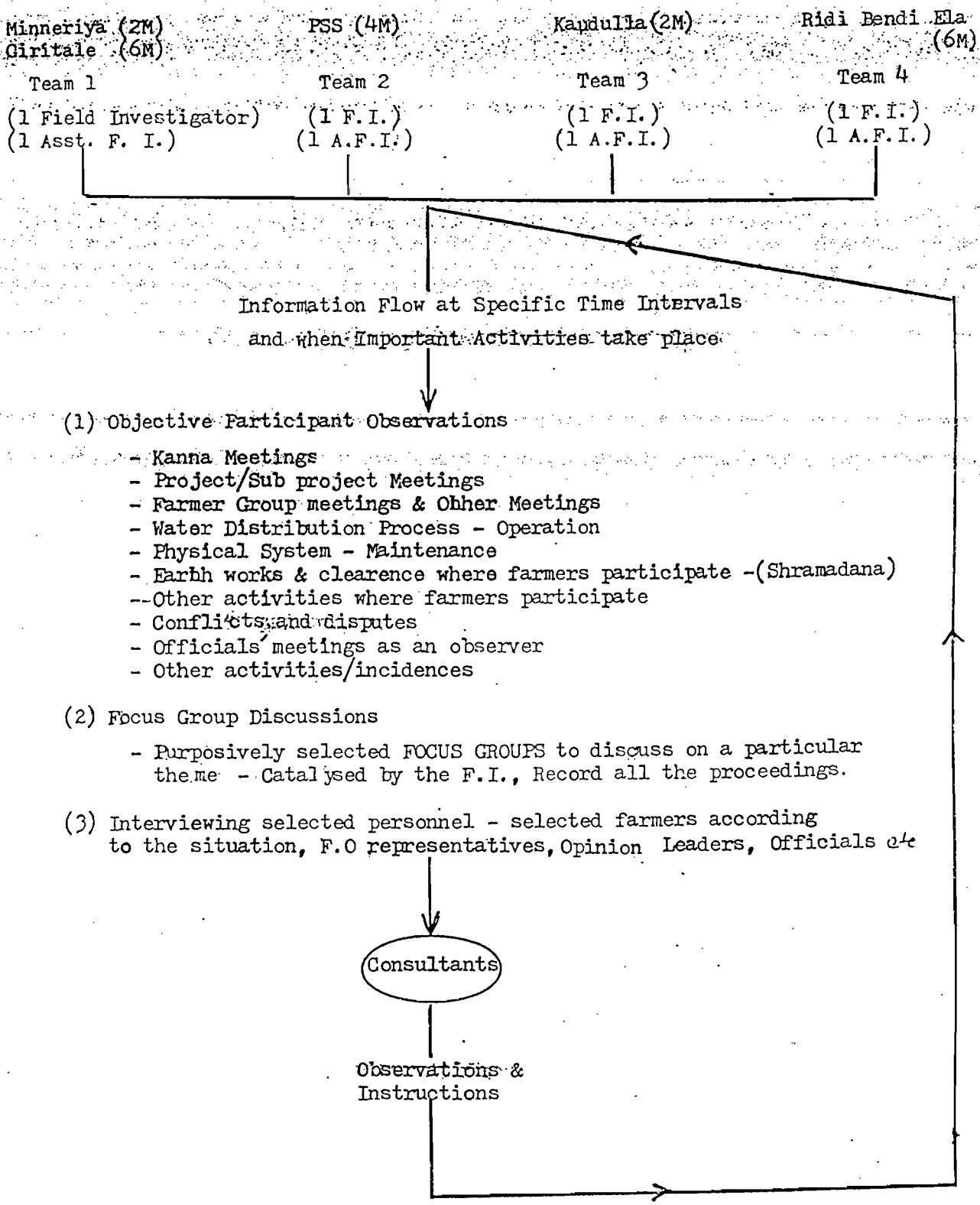

Diagram 2 : Design of Information gathering Process

Importance

Data Collection Method: 1. Objective participant Observation
2 Focus Group Discussion
3 Interviews

Kanna Meeting - 1

Obtaining Credit - 1,3

Obtaining Farm Power - 1,2

Sub. Project Committee Meeting - 1

Field Canal, D Canal clearing/Shramadana - 1,2,3

Project Committee meetings - 1

Preparation of Land, Obtaining Water - 1,2,3

Planting - 1,3

Fertilizer Usage - 1,3

Operation of Irrigation System - 1,2,3

Weed control - 1,3

Crop Insurance - 3

Use of insecticides - 1,3

Operation and irrigation system - 1,2,3

Farmer Participation/Conflicts - 1,2,3

Project Committee Meetings - 1,2

Sub Project Committee Meetings - 1,2

F.C. group meetings/participation 1,2

Obtaining Labour, Buffalors, Tractors - 1,3

Harvesting - 1,3

Setting of loans - 1,3

Crop Insurance Claim - 1,3

Obtaining Salaries

Maintenance of Irrigation system - 1,2,3

FC group - participation - 1,2

Sub Project Committee participation 1,2

Project Committee participation 1,2

Inter Institutional Participation - 1,2,3

Time

DIAGRAM 3 : ACTIVITIES WITH RESPECT TO CROP CALENDAR

The literature survey and the use of secondary data constituted an important part of the study and was adopted mainly at the preliminary investigation stage of the study, (i.e. Task 1). Objective participant Observations covered all the important activities such as meetings at different levels, operation and maintenance programmes, etc; where the field investigators played the role of observers without influencing the activity and recording the important happenings. Further clarification on these events were followed-up whenever necessary. For the Focus Group Discussions, homogeneous groups having the capability of supplying information on a particular issue were identified. Setting and the environment for the Focus Groups were carefully prepared in order to ascertain the active participation and interaction among the selected group members. On the other hand, both the individual and group interviews were carried out by meeting the key personnel of ID/IMD officials, consultants involved in ISMP implementation work, field officers of different institutions and line departments, farmer organisation representatives, farmers and other informants. In these interviews, special interest was taken to assign each interview to a carefully selected interviewer so that the outcome is productive.

In the information gathering process the consultants were assisted by a team of well trained Field Investigators who were asked to observe certain activities and interview some officials and farmer representatives. The Field Investigators presented periodical reports based on these activities which catalysed and prepared the ground work for the consultants to visit the project areas and conduct in-depth observations.

As mentioned earlier the emphasis given in this study is to make insightful observations of qualitative nature as specified by the TOR, rather than deriving quantitative indicators. In these terms the strategy of the consultants was always to conclude, for example, what

could be observed by interviewing farmers rather than counting how many farmers were really interviewed. The following indicators briefly summarise the nature of data gathering process:

i. A total of 28 participant observation sessions were conducted in the schemes. These included :

- 10 Project Committee Meetings
- 8 DCLO Committee Meetings
- 4 Training sessions to IOs
- 4 Community / activities with collective farmer participation
- 2 Kanna meetings

ii. 11 "walking the canal" trips were done observing the water distribution programme and interviewing the farmers and farmer organisation representatives.

iii. 164 farmers were interviewed using informal interview techniques which included indepth probing.

iv. All IOs were interviewed several times.

v. 5 rounds of focus group discussion sessions were conducted. The homogeneous groups that participated in separate discussions were the Project Managers, IOS and TAs.

vi. Quantitative data collected and analyzed using structured questionnaires filled by Project Managers are :
- Present Status of DCLOs of the 5 schemes
- Details of the Pilot Project Areas
- Breakdown of the DCLOs of each scheme

In addition, secondary data available at the project offices and those published in the End of Tour Report by John Wilking-Wells were used in the analysis.

1.3 Work Done

At the beginning of this study a literature review was done while having a range of interviews with different officials from a number of institutions relevant to the study area. Based on this initial work the "problems to be investigated" was formulated and the preparation for in-depth investigation was undertaken.

The evolution of farmer organisations in the selected projects and the reality of their functioning was observed in-depth while embracing the functional environment and the catalytic process implemented by the ISM Project. The information gathered was processed, verified and updated continuously in order to derive conclusions in the light of the changes which were taking place in the ISMP areas.

Based on this "observing and learning" process, major issues, alternative views and possible mode of action were conceptualised using the methodological guidelines of the Soft Systems Approach. A range of preliminary conclusions were made in the Interim Report with a critical view in order to improve the institution building process. Based on this preliminary observations a workshop was conducted with the initiative of IIMI where the consultants were able to debate their findings in front of an audience well represented by the agencies involved in the ISM Project. The investigators are extremely pleased to observe that many positive action have taken place after the workshop in the directions surfaced by the Interim Report.

The observations were continued further and the final conclusions and recommendations are presented in this report. It is important to note that the major part of the investigations of this study was done in 1989 when the functional environment was extremely tensed and inactive. The situation in the irrigation systems, under purview was drastically changed in early 1990 due to the outcome of the interim workshop of this study, national policy emphasis on user-support and the improvement of security situation. Eventhough the investigators have looked into these changes even at the cost of delaying this report, one has to bear in mind that the major part of the investigation was done in 1989 and hence the study reflects the real-world situation prevailing at that time.

The production phase which commenced around 1965 was really the beginning of the modernisation stage in irrigated agriculture. During that period the organisational and institutional issues came to the forefront together with an emphasis on an economic return on the investments made on irrigation development and land settlement schemes.

Lessons learnt from the production stage prompted planners and policy makers to turn towards optimizing the benefits from the scarce and limited resources available for increased production. There was no gainsaying that water was in fact a limited resource and therefore the management of water to assure adequacy, reliability, and timeliness was the key consideration expected to complement thinking on economic and commercial profitability. Water was therefore made the criterion of a management development perspective for irrigated agriculture with the active participation of the beneficiaries as a prerequisite to improve performance.

Plural approaches towards experimenting with farmer participation greatly enriched the content of the conceptual outlook. The implementation of the Gal Oya Water Management Project in 1979 catalysed an unique hands-on approach towards the setting up of farmer organisations which helped in a large measure to define the objectives and strategies for farmer involvement. The saga of Gal Oya is the modern history of irrigation management in Sri Lanka because the lessons from Gal Oya resulted in a total revision of strategies for irrigation development.

Integrated management was seen as a more enlightened approach to deal with issues in irrigation development that came to surface during the early eighties. Multi-disciplinary approaches to diagnosing problems and recommending solutions adopted in Sri Lanka during the period underscored the need to formulate integrated management strategies with a thrust on interdisciplinary thinking among practitioners of irrigation management. This Programme for Integrated Management of Major Irrigation Systems (INMAS) as conceived in the eighties and implemented in 1984 can be considered as an institutional approach to irrigation development.

Prior to INMAS (i.e. prior to January 1985), the 'Water Management Programme' was implemented by the Ministry of Lands and Land Development (MLLD) in collaboration with the Irrigation Department (ID). The four projects, P.S.S., Giritale, Minneriya and Kaudulla which are being studied within the present research project were also selected as 'Water Management Projects' and the Irrigation Engineers in-charge of these projects were appointed as part-time Project Managers. The Project Managers were instructed to form farmer organisations within their projects - e.g. in Kaudulla, at the end of 1984 there were 5 tract-level farmer organisations. The Chairmen of the organisations were 'selected farmers' and the Technical Assistants (TAs) of the I.D. were appointed as Secretaries. The main objective of this programme was to assist in implementing a better water management system through farmer organisations.

It must be said that during this period IMD embarked on a concerted effort to improve upon the conceptual content of the strategy by launching a communication process involving different agencies servicing the sector. It invited officials to share the new thinking which posited a departure from the previous programmes implemented in the irrigation sector. In the course of undertaking this onerous task, IMD no doubt had to overcome opposition from professional quarters which did not advocate a change from the beaten track. Therefore it appears that at the field level operations, divergent opinions were fostered which resulted in some confusion as to the new direction along which the new programme was expected to move. As a result, the establishment of farmer organisations (FOs) received a major set back in the initial stages for want of clear guidance regarding the role and functions expected of them.

In the process of developing FOs, an important milestone was the establishment of the Programme for Integrated Management of Major Irrigation Systems (INMAS). In November 1984 a batch of Project Managers (PMs) were selected under the INMAS programme. The selected Project Managers were given an orientation training on Project Management for a period of one month by the UNDP Project for Advancing Settlement Expertise at the In-service Training Institute, Maha Illuppalama.

In mid-December 1984, the trained PMs assumed their duties in the respective projects and the following tasks were assigned to them:

- to conduct short training programmes on INMAS for project and field level officers of line departments working in the project.

- to conduct farmer meetings to educate farmers on INMAS.

- to form Field Canal Farmers' Organisations and select a farmer representative from each group.

- to form Sub-Project Committees (SPCs) and a Project Committee (PC) consisting of farmer representatives and officers working in the Project.

- to co-ordinate the O & M fees collection through field officers.

- to prepare priority lists through farmer organisations for O&M work.

At the end of the initial training, the field level officers from the line-departments were asked to assist in identifying the Field Canal (FC) Groups and selecting Field Canal Representatives (FCRs). In addition, they were asked to summon the selected FC representatives and form Sub-Project Committees (SPCs) and to elect office bearers.

The Technical Assistants (TAs) and Work Supervisors (WSs) of the Irrigation Department (ID) helped the P.M. to demarcate the FC areas and SPC areas based on the issue-tree of the irrigation system. The field officers were given a target date by which to send the lists of the names of farmer representatives and office bearers of the SPCs. The first Project Committee meeting in each project was held without farmer representatives to organise the immediate programme of work and then the farmer representatives were invited for the subsequent meeting. The project managers were made members of the DAC in recognition of the role that INMAS was to play.

The Project Managers (PMs) made attempts to fulfil the given targets and to implement programmes completely new to them despite such initial difficulties as poor staff assistance, insufficient office space and lack of transport facilities. The INMAS programme suffered to some degree initially owing to these various factors but the outcome seems to be rewarding, even though the programme could not achieve all that was anticipated. Some of the issues emerging from this experience are oulined below:

i. The officers assigned to form farmer organisations had limited knowledge of the conceptual content of INMAS.

ii. During the time of their selection as farmer representatives, farmers did not know the exact role expected of them.

iii. The selection of FC representatives in some instances was neither by election nor by consensus of the group but named by the officer-in-charge. Some of the nominations were the selection of traditional leaders - rich and powerful farmers of the area or former Vel Vidanes.

iv. The future of Vel Vidanes (VVs) was questioned during the training programmes and it was explained that the Vel Vidanes will be absorbed as FC representatives. Some of the VVs who emerged as SPC Chairmen and members of the Project Committee (PC) attempted to criticize the programme as the process of selection of the FC representatives posed a challenge to their own traditional functions.

v. Lack of legal recognition of SPCs which would enable them to take action against any offenders.

vi. Lack of administrative recognition of the SPCs by some governmental organisations which were involved in the INMAS Programme.

The progress made as at the end of April 1985 in terms of the INMAS programme by the 4 schemes of Polonnaruwa which are covered in this study could be summarised as follows:

(i) Kaudulla - Most of the FC representatives were selected and the SPCs were formed.

(ii) Giritale - 96 FC representatives were selected and 6 SPCs were formed.

(iii) Minneriya - A reasonable number of FC representatives were selected and SPCs were formed

(iv) P.S.S. - 174 representatives were selected and 18 SPCC were formed.

The establishment of Farmer Organisations at FC level was an important feature recommended in the INMAS programme. It was envisaged that they will constitute the farmer groups which select a farmer from each group to represent the corresponding Sub-project Committee (SPC). The SPCs in turn were expected to nominate representatives to the Project Committee (PC).

At the initial stage the SPCs were involved in the following basic activities:

(i) Represent farmer interests in a formal organisation of farmer representatives.
(ii) Liaise between the FCO and the apex project management committee.
(iii) Organising Sharamadana to clean and repair canals and farm roads.
(iv) Demarcating the road and canal reservations and keeping these areas free from cultivation.
(v) Identifying repairs needed for FCs and DCs, solving irrigation problems and listing them in the order of priority.

The SPCs were able to perform the abovementioned activities through FC representatives to some extent by meeting once a month before the P.C. meeting. A Government Officer who was also a member of the P.C. functioned as the Secretary to the SPC to guide it at the

stage of its infancy. At this early stage of institutional development the SPCs were really committees and the main organisation of farmers in the area served by each of them did not meet formally as members of an organised body.

With the pace of development the farmer members of the Project Committees (PCs) outnumbered the number of officers and came to have a greater say in the committee. The analysis revealed that during this early period PCs were involved in:

(i) Serving as an Apex body in project management activities.
(ii) Provision of a forum for farmers' representatives and officials in a joint body.
(iii) Preparaton of Agricultural Production Programmes.
(iv) Identification of repairs and new constructions needed for the canal system and preparation of priority lists of items to be done.
(v) Assisting the TAs in the field to locate the irrigation problems and help them to prepare estimates for repairs.

2.2 Functional Area of Farmer Organisations

The present study revealed that in order to understand the actual functioning of the Farmers' Organisations (FOs), one of the primary needs is to visualise it in terms of functional areas. The following section summarises the observations made in this direction while linking the actual situation to the evolutionary process described in the earlier section.

The INMAS programme envisaged that the area of authority of farmer organisations could be defined in relation to hydrological boundaries at all 3 levels (ie. the FC, the D Canal and the Project). The FC level farmer organisations (FCOs) were expected to be the grass roots level organisations providing the building blocks from which the entire organisational structure of the project could be extended. The DC level farmer organisations (DCOs) which were named as SPCs were expected to bring together all the representatives of the Field Canal

organisations into a common forum to discuss operational matters and also to decide issues of implementation which will be sent up to the project level organisations as recommendations. The Project Committee was expected to be the apex body of the farmer organisations in the project. The management framework which would evolve by the vertical integration of these 3 levels was expected to be a significant adaptation of the Gal Oya experience to develop a framework for project management.

With a view to understanding the actual functional areas of FOs it is desirable to take a look at the layout of the irrigation distribution system in each of the schemes under investigation and its relationship to the areas of activity of the DCLOs in them, by referring to the following Annexes:

Annex 1: A scheme plan of the Parakrama Samudra scheme

Annex 2: A scheme plan of the Minneriya scheme

Annex 3: A scheme plan of the Giritale scheme

Annex 4: A scheme plan of the Kaudulla scheme

Annex 5: A scheme plan of the Ridi Bendi Ela scheme

Annex 6: A break up of the Distributary Canal Level Organisations in the Minneriya scheme

Annex 7: A break up of the Distributary Canal Level Organisations in the Giritale Scheme

Annex 8: A break up of the Distributory Canal Level Organisations in the Ridi Bendi Ela Scheme.

Annex 9: A break up of the Distributory Canal Level Organisations in the PSS.

Annex 10: A break up of the Distributory Canal Level Organisations in the Kaudulla Scheme.

It was observed that the design of the canal systems in major irrigation systems has been changing with the expansion of knowledge and experience gained from design systems over a period of nearly 50 years. Although a clear distinction has been made between main and branch canals from which only distributory canals can take off, the design of D canals and field canals has not been uniform. It is observed that pipe outlets sometimes take off either from the main canal or from the distributory canal. Individual field canals serve 5 - 125 acres and D canals serve 50 - 2000 acres. Sometimes FCOs consist of two or more FC areas and the DC level farmer organisations consist of a part of an area served by DC or areas served by two or more DCs. Large DCs with more than 2000 acres are sometimes broken up into as many as three DC level farmer organisations.

From the point of view of the institutional building process one may find it difficult to sustain the logic of defining farmers' organisations in relation to the hydrologic boundaries when a DCO consists of part of a DC area, unless there are control structures which can clearly determine a separation of a hydrologic area.

The analysis revealed that the farmer organisations at FC and DC levels were originally identified as FCO and SPC respectively. In mid-1989 the latter was called DCO. However the observations indicate that the majority of these organisations are not based on hydrological boundaries of FCs and DCs and hence calling these organisations FCOs and DCOs is misleading. It was found in reality that the entities of farmers at the FC level are not organisations even in terms of the simple acceptable terminology of an organisation and hence it is better to call them "FC Level Groups" (FCLG). On the other hand, at the DC level what really exists is DC level farmer organisations (DCLO). It has been observed that the FC farmer organisations which are being considered by many institutional development experts working in the irrigation sector as most important and centres of concentration are in fact only FC level farmer groups which do not exhibit the essential characteristics of an "organisation" even in the most simple form.

The pattern of Field Canals (FCs) in these schemes is generally one of small FCs, including in some cases pipe outlets, taking off Distributary Canals (DCs). Giritale for example, has 32 distributory canals and 341 field canals, so that each DCLO covers 2-4 distributary canals and each FCL farmer group represents 2 or more field canals. Given these data it would seem reasonable to observe that there are wide variations in physical layout which restrict the adherence to "hydrological boundaries" as the functional areas of FCLGs and DCLOs. It is not difficult to have two or more FCs in a single FCLG and two or more DCs in a single DCLO; but where a D.C is very large and has to be broken up into two or more DCLO areas, it would appear to be necessary to construct control structures at the entrance and exit from one DCLO area to another if they are not already available. If this feature is not provided, there is no meaningful way in which a DCLO can "manage" the amount of water it receives from the "hydrological unit" i.e. the main canal or part of distributory canal above it. The ISM Project has decided that canals which were originally termed as FCs but are irrigating more than 60 Acres should be reclassified as DCs. This is a positive decision as it avoids situations where a single FC has to be served by two FCLGs.

In the initial definition of DCLO areas (then called SPC areas) in the ISMP, combinations of part or the whole of D Canal areas (together with FC areas and pipe outlets led from the main canal) were used which yielded extents of 500-1000 acres per DCLO. There were several exceptions where DCLO areas ranged from 1000 - 2000 acres. In these cases Sheladia originally proposed that where a simple full-time Water Distributor (Jala Palaka) could not manage his functions, there should be a Water Manager (Jala Kalamanakara) to supervise two or more Water Distributors (Wilkins-Wells, 1986). The managerial skills required for these two level of functional authority are not likely to be found among farmers in the ISMP.

In the intervening period the farming community made representations that such large DCLO areas should be broken up into 2. Thus under PSS the following changes were made.

Name of Original DCLO	Extent	No. of DCs	Date of Change	Name of New DCLO	Extent	No. of DCs
Thalpotha	1406 acres	2	8/89	Thalpotha	617 acres	1
				Laxauyana	789 acres	1
	1282 acres	7	11/89	Laxauyana	664 acres	4
				Sinhapura	618 acres	3
Aluthwewa	1670 acres	1	12/89	Aluthwewa	1258 acres)	1
				Weerapura	412 acres)	

There are similar examples in the other schemes as well. By means of discussion with the IMD officials & FOs concerned at the time of these developments the consultants of TEAMS observed that such changes were in the right direction, to arrive at a functionally viable sizing of DCLOs. Where the old VVs could manage water issues to 150-250 acres by themselves, the DCLO Chairman and Secretary or paid water distributor could manage water issues to FCs and pipe inlets directly fed from the D. Canals serving 500 - 1000 acres as he had the assistance of several FCLG farmer representatives for 60 acre areas. The mode of conveyance used by the Water Distributor was generally the bicycle.

This tendency to subdivide the larger DCLO into smaller units however can be carried too far. There have been cases where owing to friction between two groups of farmers in a single DCLO area - over water issues, maintenance, social conflicts or any factors they have made representations that DCLO areas already in the 500 - 1000 acre range should be subdivided. It was observed that, such smaller DCOs may not be viable units to undertake distributary channel repair and rehabilitation contracts or to venture out into supplying agricultural inputs and marketing facilities. The cost to the ISMP will also increase if it has to facilitate many smaller DCOs.

In the PSS scheme there are still 8 DCLOs with more than 1300 acres of land each; and 3 DCLOs with less than 500 acres each (see annex 9).

In the case of the informal FCL groups it is generally accepted that they should be less than 60 acres in extent depending on the size of the FC.

Attempts have been made by Sheladia to organise Area Councils consisting of 2 or more DCLOs under a branch canal. It was observed that while ad-hoc meetings of DCLO office bearers in such cases may be necessary to coordinate water issues, there are difficulties to recognise the need for a permanent "middle level organisation" between the project (management) committee and the DCLOs in the ISPM. (The situation is quite different from that in the Gal Oya scheme where sub-project committee areas are sometimes as large as the project areas in the ISMP and hence middle level organisations are a necessity).

The physical area to be covered appears to be more important than the number of farmers, in determining the size of DCLOs and FCL farmer groups. The data collected at various times regarding the "number of farmers" is itself misleading since many people refer to the legal owner (in most cases the original allottee under the LDO) as the farmer. In reality most of the 3 and 5 acre irrigated holdings (except in the Kaudulla scheme) have already been broken up into 2 or more holdings, separately farmed by the original owner's heirs, even though they receive water from a single pipe outlet. This is in addition to the changes caused by leasing, mortgaging, ande and other forms of tenancy in 15-30% of the original holdings. The analysis revealed that the actual number of "farmers" is far in excess of the number of memebers' of DCLOs. However, Annexes 6-10 clearly show that membership of DCLOs has been restricted by the original allottees mainly to themselves.

In the intervening period the farming community made representations that such large DCLO areas should be broken up into 2. Thus under PSS the following changes were made.

Name of Original DCLO	Extent	No. of DCs	Date of Change	Name of New DCLO	Extent	No. of DCs
Thalpotha	1406 acres	2	8/89	Thalpotha	617 acres	1
				Laxauyana	789 acres	1
	1282 acres	7	11/89	Laxauyana	664 acres	4
				Sinhapura	618 acres	3
Aluthwewa	1670 acres	1	12/89	Aluthwewa	1258 acres)	1
				Weerapura	412 acres)	

There are similar examples in the other schemes as well. By means of discussion with the IMD officials & FOs concerned at the time of these developments the consultants of TEAMS observed that such changes were in the right direction, to arrive at a functionally viable sizing of DCLOs. Where the old VVs could manage water issues to 150-250 acres by themselves, the DCLO Chairman and Secretary or paid water distributor could manage water issues to FCs and pipe inlets directly fed from the D. Canals serving 500 - 1000 acres as he had the assistance of several FCLG farmer representatives for 60 acre areas. The mode of conveyance used by the Water Distributor was generally the bicycle.

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2.3 Functioning of Farmer Organisations at Field Canal Level

In the context of the irrigation schemes of Sri Lanka, the farmer is generally assumed to be the water user or the cultivator of the land. In spite of measures taken in the direction of developing FOs, there has been no formal definition as to who should be recognised as the farmer for the purposes of membership of the FC level activity groups or for selection/ election as a farmer representative. The Irrigation Specification Register prepared by the Government Agent for each scheme gives only the name of the legal owner of the land. Since a very high percentage of the lands were allotments under the Land Development Ordinance, the legal owners for this purpose are deemed to be the original allottees under the Land Development Ordinance who received standard sized irrigated holdings i.e. 5 acres in the earliest developed areas and 3 acres in the rest, excepting Stage II of the Kaudulla Scheme, which was the last to be developed and has two-acre irrigated holdings.

However, many misconceptions arise from the definition of the ISMP that the farmer is the original LDO allottee. Many changes have occurred in intervening years. For example:

a) Many encroachers have subsequently had their encroachments regularised. These are of varying sizes.

b) Some of the regularised encroachers have the right to obtain water from the irrigation distribution system for the cultivation of their lands.

c) Other encroachers who have also been regularised do not have the right to obtain water from the irrigation distribution system, though many of them do so.

d) The original LDO allottees do not have the right to take water from the irrigation distribution system for the irrigated cultivation of their highlands ranging from 3 acres in the earliest areas, two acres in the later areas to one acre in the Kaudulla

scheme. Where these highlands are below the irrigable command, those who now farm them do in fact often take water from the system for the cultivation of these lands.

e) The majority of the original LDO allottees, except perhaps in the Kaudulla scheme, are now over 60 years old. They have in many cases sub-divided their lands amongst their children or heirs who now actually farm them. Since the minimum unit of sub-division under the Land Development Ordinance that is accepted in these colonisation schemes is 1 1/2 acres, some of the original holdings of 8 acres i.e. 5 + 3 are farmed as 2,3 or even 4 separate holdings and some of the original five acre holdings i.e. 3 + 2 are farmed as 2 or even 3 holdings.

f) In some cases the original LDO allottees have legally transferred their rights to their heirs in this way and the heirs can get their names into the Irrigation Specification Register.

g) In other cases the original allottees have handed over the lands to the heirs to be farmed by the latter but have not transferred their legal ownership. Technically, these heirs cannot be recognised as "owners" and their names do not appear in the Specification Register.

h) Studies have shown that 15-30% of the allotments have been leased or mortgaged by their original allottees to others. This has been done in many different ways as given below:

i) In some cases the farmer has obtained money from the person who has taken the lease or mortgage but continues to work on the land as an agricultural labourer.

j) In other cases he continues to work as the tenant cultivator of the person from whom he has obtained money.

k) In some instances the person who has taken the land on lease or mortgage cultivates the land himself.

l) He may employ the agricultural labourers other than the original owner to cultivate the land.

m) In other cases he employs one or more tenants other than the original owner to cultivate the land.

n) Some of these leases or mortgages run for a season or a year or two. Perhaps the legal owners are conscious of the posible effects of tenancy rights on these lands and do not wish to have the same lessee for too long.

o) Others may run indefinitely

In the light of the above reality it is difficult to recognise **who is the farmer** in connection with formation of farmer organisations. This is a primary issue which requires attention in the process of building farmer organisations. The statistics of the **number of allotments** vs **number of members** in the DCLO in PSS (Annexes 6-10) seem to indicate that a large number of farmers who farm holdings in the circumstances described in clauses (a) to (o) above are not yet accepted as members of the DCLOs. In the few cases where a large number of farmers other than original allottees are members of the DCLO, it is found that they are traditional Purana Villages or Village Expansion Scheme allottees who have subsequently been benefitted by the Irrigation system. Thus the principal of **(1Man - 1Vote)** applies at present to all original allottees but not to many other types of "farmers".

In order to highlight the difficulties faced by FOs as an outcome of the loose definition of the membership, a few examples from the field observations of the present study are worth presenting.

(i) The I.OO at Kaudulla said that in 1984 when the FC level representatives were first selected by consensus some non-cultivating owners and non-owners such as mortgagors and lessors have been

chosen as FC level representatives and even as D Canal level organisation Chairmen. It is generally felt that such persons were not suitable as they were more interested in the prestige of holding office than in the service they could render to the farmers through it.

(ii) In the PSS the Project Manager observed that some of the DCLO Chairmen are not attending the Project Committee Meetings regularly. He also mentioned that some of the FCL representatives are also not active although the DCLO Chairmen should take the initiative to motivate the FCL representatives and if necessary to re-appoint new people to these positions. In fact, two inactive DCLO Chairmen have been removed from office.

(iii) According to the Secretary of the Wijayarajapura DCLO who was interviewed on a visit to PSS, the office bearers of farmer organisations should be renewed from time to time. If not, they use such positions to become elites in the community. On the day after the interview, the same Secretary and the Chairman were re-appointed by the farmers to the same positions to continue their work with the farmer organisations. This is mainly because the original LDO allotees still tend to dominate the membership of the DCLOs.

(iv) At a Project Committee Meeting under PSS, it was observed that many DCLO were not active enough before re-organisation mainly because IMD under the INMAS Programme from 1984-1986 selected by consensus those traditional leaders they thought could be good as FCL representatives. The DCLOs are being re-organised and therefore elections will be held by secret ballot for any areas taken under the ISMP.

Although such instances are not of high statistical significance, the appointment of persons with no commitment to the well being of the immediate community appears to be counter productive. The solution to this problem would lie in the procedure for a selection/ election of farmer representatives.

At present the majority of farmer representatives do belong to the owner operator category. The statistics in Tables 1 & 2 show that 85-96% of the FCL representatives are owners or their offspring who cultivate the land.

At FC level what were expected to exist were informal groups of farmers who would get together on an ad-hoc basis when necessary in connection with water distribution or other matters related to the cultivation of the land and not farmer organisations as such. It was observed that (i) in some FC level areas such informal groups did not exist at all, (ii) in others they did exist, but only a minority of the farmers participated in their meetings and other activities; and (iii) in some areas they did exist and the majority of the farmers participated actively in them. Formal farmer organizations do not exist at the FC level perhaps because there is no need for them. Although a motivation programme is being implemented to motivate the majority of farmers to participate actively in the informal groups, the effect seems to be not quite sufficient.

The current activities of farmer groups and farmer organisations in the four Polonnaruwa schemes are summarised below. At the FC level the farmer groups fall into the three categories described.

In so far as they are active they have ad-hoc discussions initiated by the FCL representative because he is enacting what is suggested by the DCLO.

In addition to ad-hoc discussions, what a member in the group is required to do may be intimated to him individually because some of the activities are routine from season to season and are known to the members.

In general the ad-hoc discussions are mainly in regard to-

a. Clearing and repairing of field canals, canal bunds, road formation and subsequent maintenance either through shramadana or individual allocation basis.

b. Mutual arrangement of water distribution at the time of land preparation and rotational distribution at times of water scarcity.

c. Conflict resolution among the farmers within the FCL area on an informal basis and mutual understanding.

d. To forward unresolved individual or common farming problems to the SPC or to the officer responsible through the FCL representative.

e. To implement or arrange to carry out instructions from the DCLO, PM or other field officers serving the area.

f. Problems of supply of inputs and disposal of outputs, and matters related to the cropping calendar or cultivation programme.

The frequency of discussions and the number of members actively involved varied according to

- location of the DC in relation to the main canal

- location of the FC in the irrigation network. (head or tail of the DC)

- even for a particular farmer; head or tail end of the FC itself based on water availabillity and irrigation problems.

- the state of the FC ie. level of maintenance

- leadership qualities of the FC representative and his interest and involvement.

- the cohesiveness of the FCL group, and

- the influence of the officers activating the group.

The farmers carry out group action programmes to implement what they have decided on at the FC level, with the FC level representative taking a leading role when necessary (e.g. in water issues and shramadanas).

These observations also confirm that the existing "FC groups" are not farmer organisations. They are "informal groups" mainly consisting of farmers of one or two field canals. They do not meet formally at regular intervals. Rather, the farmers in this group casually meet often while attending to their cultivation and water management within their respective paddy plots. They do not have constitutions or bye-laws for their group activities. The FCL representative is the "spokesman" at the DCLO, on behalf of the FCL group and he also is the "organiser" of Field Canal Level activities.

2.4 Functioning of Farmer Organisations at the Distributary Canal Level

The Cultivation Committees under the Paddy Lands Act of 1958 which existed between 1958-1971 were the only genuine farmer organisations in the post-independence era. However they were not always given due recognition in the Polonnaruwa district owing to their patronage from the Ministry of Agriculture and the consequent opposition of the Minister of Irrigation who was all important in this district. Prior to the formation of the FOs by the IMD in 1984 there was a long period (1971-1983) when two officially sponsored bodies, the A.P.C. (from 1971-1978) and the ASC (from 1978 todate) were intended to function as FOs. They were so overweighted and dominated by officials who were nominees of Members of Parliament that they did not gain acceptance by the farming community as F.OO.

The original SPC set up in 1984 with some government officials functioning as Secretaries and the selection by the IMD of "traditional" leaders such as former Vel Vidanes, Mudalalis, government officials etc. as FC representatives, may have been necessary at the time to strengthen the SPC at their inception. However such farmer representatives are now perceived to be not adequately motivated to safeguard the interests of the general body of farmers in their respective areas.

The traditional Vel Vidanes generally saw to water distribution in an area of about 200-250 acres. This was virtually a full time job and the Vel Vidanes generally used tenant farmers or agricultural labour to cultivate their own fields. In addition the farmers gave them a i.e. "salaris" of half a bushel per acre. Although the DCLO Chairman now has the assistance of a large number of F.C. level representatives, he has to liaise between them and the I.D. staff in respect of an area varying from 250 to 2000 acres. There is a felt need for a full time paid "water distributor", covering 500-1000 acres each, where the DCLO Chairman/Secretary is not able or willing to undertake this function on a voluntary basis.

The DCLO Committees meet monthly on a regular basis. They discuss mainly the following matters:

a. water issues from DC's and rotational problems
b. identification of maintenance and repair problems in DCs
c. conflict-resolution within the DCL area on an informal basis
d. two way communication through the DCLO Chairman of their needs and the programmes of the governmental agencies pertaining to the agricultural production programme which includes, but is not limited to, the cultivation programme. Matters such as agricultural inputs, credit and marketing are also discussed.
e. the pre-kanna meeting which discusses the tentative agricultural production programme and cultivation calendar is of particular importance. This may be followed by one or more subsequent meetings if the DCLO Committee wishes to discuss variations of these programmes which have been necessitated by decisions taken at meetings at Project Level etc.
f. in several, but not all, of the Implementation areas, the DCLO Committee has already undertaken, commenced or even completed contracts for repairs to structures in D canals and F canals
g. likewise they have taken over the operation and maintenance of the D canals in a few of these areas.

The lack of legal recognition of FOs is more keenly felt in the ISMP (except in the case of RBE) than in other major irrigation schemes as the ISMP DCLOs are more advanced and active than F.OO elsewhere.

Upto October 1989 (where the major part of the field investigation of this study was carried out) the seasonal agricultural production programme for each major scheme was drawn up at the Project Level, virtually by the Project Manager with the assistance of the Project Committee. The same programme was informally discussed by DCLO particularly at the pre-kanna level meeting. It has been observed that where the DCLO perceives that there is a likelihood of failure on the part of the accepted sources of supply to provide an input that is needed by the farmers, the stronger DCLO have already ventured out into providing this input, for example.

a. *the Kusum Pokuna DCLO in the Minneriya scheme has decided to operate a metal quarry to provide the metal needed for a rehabilitation contract they had undertaken; they are now considering whether to provide metal to adjoining DCLOs for their rehabilitation contracts. It should be noted that although this is not an activity of the seasonal agricultural programme it is an activity which is useful in relation to the DCOLs increasing responsibility for maintenance of the secondary and tertiary distribution systems.*

b. *the Kusum Pokuna DCLO and other DCLOs have organised shramadanas not only for earthwork in canals but also for improving the gravel roads in the area.*

The possibility of making each DCLO responsible for preparing its own seasonal agricultural production programme is being considered at present. If such a scheme exists, these DCLO programmes could then become the building blocks of the project level agricultural production programme which would thereby be made more meaningful and accurate. Many DCLOs are showing interest in improving the input supplies and marketing facilities available to their members. The Project Managers tend to encourage such activities. This is a welcome sign which indicates the growing strength of the DCLOs.

The DCLOs in the four Polonnaruwa schemes are very active and lively. Despite the threats posed by subversive and counter-subversive activities in 1989 they have in most cases met regularly once a month, and the minutes of their meetings show that they have concerned themselves with all aspects of O & M, the rehabilitation of the irrigation distribution system and the shortages of inputs for the agricultural production programme. The presence of the Project Managers at many of these DCLO meetings as well as the presence of the I.O. and officers from the related line departments, such as the Irrigation Department, has helped to gain acceptance of their bona fides by both subversive and counter-subversive groups. The officers of the IMD and the ID in particular, deserve to be commended for their positive attitude towards grass roots farmer organisations during a very difficult and even dangerous period for themselves.

2.5 Functioning of Farmer Organisations at the Project & District Levels

In the Polonnaruwa District the Project Committee chaired by the Project Manager has as its members the Chairman of each SPC and the officials of the line departments concerned such as the IE, the TAs, the AIs, the DOAS and the IOO of the IMD. In the SPCs formed in 1984 and not reorganised as DCLO in 1988/89 the representative of the SPC in the Project Committee is sometimes an official such as the TA or another official who was the Secretary of the SPC since its inception. The Project Committees are in reality "mixed representatives" or "joint groups" consisting of officials and farmer representatives. The DCLO representatives are able to express their views without reservations but if a line department representative "states a departmental position" that is the end of the matter. The conflicts between DCLO and ID are often highlighted but rarely resolved. However, there has been a substantial improvement in this regard over the first quarter of 1990.

The Project Committee meets once a month on a scheduled date and is chaired by the P.M. In this series of meetings the pre-kanna meeting could be taken as the starting point for the on-coming kanna or cultivation season.

At the pre-kanna meeting the P.M., as the chairman, expresses his appreciation of the members and officers for their efforts and of the farmer members and others for their support and cooperation rendered during the previous kanna to make it a success. In turn the farmer members thank the I.D. for providing them their "basic need", that is, the irrigation water.

The next major item is to decide tentative dates for the various cultivation activities for the on-coming kanna. These dates are proposed at the pre-kanna meeting. The basic data needed for this, such as the present storage of water in the tank, balance requirements and the sources of supply are explained by the officers of the I.D. who thereafter suggest a date for the first issue of water to commence land preparation. This is purely based on water availability.

The farmers however consider other production factors also. These include, availability of seed paddy if they have to change to a short-term variety if the Maha season is late, availability of cultivation loans because the release of the loans takes time, exposure to pest and disease out-break during specific months with the age of the crop and the disastrous effects of the torrential rains during the Maha on sown paddy.

Hence, a decision on the first issue of water is a debatable topic between farmer members and officials but once they agree on a compromise, the fixing of other activities and relevant dates is smooth.

The additional conflicting topic during a Yala cultivation season is whether to cultivate the whole extent of land or a part, in a scheme like Kaudulla, to cultivate the entire area with paddy or a combination of paddy-subsidiary food crops in order to optimise the use of water which is the scarcest resource.

The cultivation calendar is finalised and decided on at the kanna meeting. Any extensions of water issues are discussed at the PC meetings towards the end of the cultivation season and conveyed to the relevant authorities.

Other matters discussed at the regular PC meetings in order of priority are:

- irrigation problems, rotational water distribution
- rehabilitation work and activities of farmer organisations
- mortgages and other arrangements which may ultimately dispossess the original "farmers".
- agricultural input supplies and marketing
- agricultural production and crop diversification
- other socio-economic and socio-cultural activities

According to the instructions given by the IMD, the PM with the help of the members of the PC prepares a detailed agricultural production programme for each cultivation season. This is a comprehensive programme. It covers not only paddy production but also the production of other field crops and fruit crops, covering both high land and irrigable land. The input requirements, namely seed, fertilizer, credit, agro-chemicals, animal and machine power and marketing are also estimated.

The PM collects all the data needed for this document from the officials and the farmer representatives. The sectoral programmes of State organisations operating in the project area are extracted from this document as a top-down exercise. However, in regard to implementation, it is the farmers at the bottom who know whether the breakdown of the targets for their area is in line with their actual requirements. Since these views are not well presented in the production programme the targets are sometimes unrealistic.

The formulation and implementation of an agricultural production plan by the PC through the farmers is as important as the water distribution. Although there are signs that stronger farmer organisations are emerging, it is not certain whether adequate attention to systematic production planning and implementation is given at present. The efficient use of scarce resources with better participation of farmers through which the organisation could increase productivity from the land and water, will give higher incomes to the farmers.

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The Project Committees discuss ad-hoc arrangements to meet shortages in agricultural requisites such as seed paddy, fertiliser and agro-chemicals. They may also have two or more monthly meetings to discuss amendments to the cultivation calendar originally proposed, on account of water shortages etc.

The Project Committees also regularly discusses the O & M programme including the Rehabilitation Programme. They bring up problems that their DCLOs have encountered with regard to delays in taking over the D canals for O & M, defects in the contracts given to them by the IEE, delays in getting these contracts administered (including delays in payments) shortages of materials etc. They provide an useful forum in this regard for interchanges with the I.E. when problems do not get sorted out at the DCLO level with the TA. However these problems often remain unresolved even at the Project Committee level.

The conversion of the Project Committees into Project Management Committees with statutory powers and functions under the Irrigation Act, (which we have recommended elsewhere) could help them to evolve towards effective joint management of these major irrigation schemes. Such Project Management Committees should have a clear majority of DCLO representatives and should have the right to elect any of its members as its Chairman. They should have responsibility for management of the maintenance programmes for the DCs and FCs.

One DC level representative from each Project Committee has been appointed (as farmer representative of each Project) to the District Agricultural Committee. This is a healthy development.

The DAC meeting in October 1989 which was observed by the consultants of TEAMS was very skillfully conducted by the GA. Although four out of the five MPP and several Provincial Councilors and a battery of officials were present, the real exchange of ideas was between the GA, the DDI, the four farmer representatives and the Project Managers who supported the latter. The GA and the DDI gave the dates proposed by the Water Management

Secretariat (WMS) of the Mahaweli Authority for the first water issues in the three schemes fed from the Elahera anicut (15th November). The farmer representatives agreed after discussion on the dates for PSS and Kaudulla on the basis of which the pre kanna meetings and kanna meetings could be held. Since the DDI and the farmer representatives could not agree on the dates for the other two schemes, the GA postponed the decision. But he was clearly paving the way for the farmer representatives to go back to the pre kanna meetings in Giritale and Minneriya and try to get the farmers to agree to the 15th November date. The issue was that the farmers wanted early water issues, that is between 15th to 31st October, to make best use of the rains for ploughing while the DDI felt that there was not enough water in the tanks for land preparation to be continued if the rains were late. The priority of MASL WMS and the DDI was to build up adequate water levels in Kantalai and Kaudulla schemes which were fed from the Minneriya Tank before water issues were made to any schemes fed directly from the Elahera anicut.

The DAC meeting was conducted in a very democratic manner and the views of the four farmer representatives were given due consideration by both the GA and the DDI. In this District level body the four farmer representatives exerted an influence out of all proportion with their numbers when it came to discussing the cultivation calendar.

The farmers of Giritale and Minneriya at a later stage agreed under protest to water issues being commenced only on 15th November. This enabled WMS to ensure adequate water for the season in the Kantalai and Kaudulla Schemes. No one was disadvantaged. However, the newly sown paddy in all the schemes was damaged by torrential monsoons rain in December. Some farmers had to partially resow their fields. Ultimately, the Maha 89/90 season was very successful in these schemes and high yields were realised. This episode illustrates the sacrifices that some part of the farming community had to make for the greater good of the whole community. The successful outcome reflects credit on all concerned such as the farmer representatives, farmers and officials.

- To obtain views on how to conduct rehabilitation activities.

- To concentrate on rehabilitation activities where adequate monitoring and evaluation could be conducted, and to learn from experience in the pilot areas.

- To appoint a Water Manager (Jala Kalamanakara) and full-time Water Distributor (Jala Palana Sahayaka) to operate and arrange the maintenance of the system.

The analysis revealed that, since the inception of the Pilot Area Programme in early 1988, consistent attempts have been made to implement the corresponding activities of the project in these areas. Mass meetings were held in all 4 Pilot Areas in Polonnaruwa district where a high level of farmer participation was noted. The main activity in these mass meetings was, to obtain the commitment of the farmer community, which was quite successful. In all the Pilot Areas, overwhelming support for the election of FC level farmer group representatives and DCLO officials can be observed. Although in general, election through secret ballot took place, there were many instances where the selection was made unanimously without having a secret ballot. Table 1 clearly indicates that although at the inception in 3 DCLOs (out of 5 Pilot Areas) the selection procedure both at the FC level and at DC level was through consensus, after reorganisation in almost all the cases the officials were elected. However, redrafting the constitutions and by laws and their ratification took a considerable time. Nevertheless by and large, the reconstitution activities of the DCLOs of the Pilot Areas in Polonnaruwa District could be considered as being completed satisfactorily due to the effort made by the Consultants of SAI.

Unfortunately, one of the other important activities planned for the Pilot Areas - Rehabilitation Works of the Irrigation System faced severe constraints. Although some of the reasons for this draw-back can be attributed to the threats and pressure imposed by unknown elements on the farmers not to take part in these activities, several lessons can be learnt from their experiences.

	Scheme	Pilot Project Area	Extent (Acres)	Number of Cultivators	Number of D.CC	Number of F.CC	Number of F.C. Reps.	Date of Inception of PP	Selection/Election Procedures of F.O Officials at Inception	
									F.C. Level	D.C. Level
1	Parakrama Samudra	Damana Gemunupura	483	100	1	8	10	May 1988	Consensus	Consensus
2	Giritale	Chandana Pokuna	512	140	2	21	9	March 1988	Consensus	Consensus
3	Minneriya	Kusum Pokuna	2100	600	1	60	27	Feb.1988	Election	Consensus
4	Kaudulla	CP Pura Perakum	999	333	1	57	24	March 1988	Election	Election
5	R.B.E	Magallegama	643	338	2	37	28	April 1988	Consensus	Consensus

Table 2 indicates clearly that with the exception of some rehabilitation activities many others were not implemented to an acceptable level. The emerging lessons from this experience in attempting rehabilitation activities in the Pilot Areas are:

- That the ID administrative and technical officials should make realistic estimates for the works and make them available to the FOs in time, to start the work in closed season.

- The DCLOs should be motivated and given confidence to undertake the earth work and construction work, both through community participation (shramadana) and through self-help based profit oriented strategy.

- The DCLOs undertaking the construction work should be provided with some financial support to start their work if they do not have capital resources.

- The DCLOs making initial preparatory arrangements for the construction work, should be given adequate technical instructions and guidance on small scale contract management.

- They should be given support by providing standard pre-constructed devices such as pipe outlets, and other requirements like metal, cement etc, which may be difficult to gather due to situational problems.

- All the necessary steps should be taken to expedite the payments to the FOs after the submission of the payment vouchers.

- If some DCLOs are willing to award the work to suitable private contractors, then the environment should be developed for healthy competition.

Table 2. Performance of Rehabilitation programmes undertaken by S.P.C. in Pilot Project Areas from January 1988 to October 1989

Project I. PSS Damana Gemunupura

Type of Work	Estimated & Assigned on	Estimated Amount Rs.	Extent completed upto October 89 Rs.
Desilting	August, 1988	31,579	18,979
Earth works	- do -	470,963	372,322
Structures	- do -	1,108,295	372,925
For 5 FCC	- do -	299,700	26,532 *

It was found that the main reasons for the shortfalls observed as per Table 2 are:

- Prevailing security problems in the country until recent times.
- Lack of interest shown by the farmer organisations in accepting the contract works due to escalation of prices
- Even though the farmer organisations were prepared to award the contracts to outside contractors, those contractors too did not untertake the works according to the given estimates.
- Requirement to release water for the next kanna, before the completion of work undertaken in the DC & FCC.

* Contracts in 2 FCC undertaken by the DCO & only completed 55.33%

Project II. Giritale: Chandana Pokuna

Type of Work	Estimated & Assigned on	Estimated Amount Rs.	Extent completed upto October 89 Rs.
Rehabilitation of D23, RB 1 to 7 8 End regulators 6 Pipe outlets 1 Culvert 3 Flume Oct. 1989 Drop structures	August 1988	79,000	No payments made upto Oct.1989
Rehabilitation of D23 and B1 1 Flume 7 Drop Structures (DS) Repairs to 3 BS 4 Wooden gates 12 Tube outlets 4 End Regulators 30 Meters of Canal Sides Repairs to 2 small structures	August 1989	100,000	No payment made upto Oct. 1989

Continued

Rehabilitation of D23 & B 2,4,5,6,7,8 1 Flume 29 Meters of Canal Sides 2 Culverts 5 Drop Structures 13 Pipe outlets 4 End regulators	August, 1988	133,000	No payments made upto Oct. 1989.
Rehabilitation of D23 & B3 1 Flume 2 Pipe outlets 11 Drop structures 2 Wooden gates	August, 1988	169,000	No payment made upto Oct. 1989
D 24 Rehabilitation 1 Measuring device 39 Meters of canal sides 19 Pipe outlets 3 Drop structures Repairs to 4 Drop structures	April 1989	155,000	No payments made upto Oct. 1989.

It was found that the short-falls of Chandana Pokuna were due to:

- Only the supply of metal and sand has been done

- Construction work postponed due to lack of cement

- It is expected to obtain cement from the I.D for which the Department would surcharge at the rate of 25% , as this request was not included in the contract.

Project III. Minneriya - Kusum Pokuna

Type of Work	Estimated & Assigned on	Estimated Amount Rs.	Extent completed upto October 89 Rs.
Rehabilitation of D31, FCC 10,11, 12,14,21,27,31 upto 39	August 1988	153,651	13,510

The above mentioned short-falls of Kusum Pokuna were due to the conditions that prevailed in the country. As the Hony. Secratary and the Hony. Treasurer were killed, the DCLO ceased to work.

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Project IV. Kaudulla - CP Pura Perakum

Type of Work	Estimated & Assigned on	Estimated Amount Rs.	Extent completed upto October 89 Rs.
Reparis to the bund road in RB1 D1 FC4	May, 1988	3,551	3,551
Rehabilitation of the Canal RB1,D1, FC 19	May, 1988	148,639	147,349
Repairs to FCC1 5,6,7,9, 10	Feb, 1989	7,090	7,090
Rehabilitation of FC2	Feb, 1989	2,914	* Work not started
Rehabilitation of FC4	Feb. 1989	704	* Work not started

Reasons for short-fall

* Needs much more than the estimated value.

Project v. RBE - Magallegama.

No rehabilitation work done in RBE pilot project area during the period under review.

The actual performance of maintenance work by the DCLOs of the Pilot Areas is also not up to the anticipated level, as given in Table 3. The maintenance work in the Pilot Areas have been mainly confined to desilting of canals which is also being done in other areas. Thus it does not indicate that a higher level of work has been done with respect to the maintenance of the irrigation system, in the pilot areas compared to the other DCLOs.

Table 3: Performance of Maintenance Work by the DCLOs in Pilot Project Areas as at 1989

Scheme - DCO	Description of Maintenance work undertaken upto October 1989
PSS - Damana-Gemunupura	No maintenance work other than desilting was undertaken by the DCLO. The expenditure on desilting is given under rehabilitation works.
Giritale - Chandana Pokuna	No maintenance work was done by the DCLO. However, maintenance work such as desilting and clearing field canals were done by FC groups through Shramadana. All the expenses incurred here were borne by the cultivators.
Minneriya - Kusumpokuna	No appreciable maintenance work done by DCLO. This is due to the fact that the maintenance work was not yet handed over to DCLO. The maintenance was done by ID under rehabilitation work.
Kaudulla - CP Pura - Perakum	Clearing of the Old Irrigation Canal, facilitating good flow of water in FC 33 and FC 15. For this activity 83 man-days were utilised at the rate of Rs.60, the total amounting to Rs.5000/=. Lack of funds, difficulties in the provision of raw materials were the major constraints.
RBE - Magallegama	The maintenance work is done not by the DCLO but by the farmers.

The operational performance of the system by DCLOs is not superior in the Pilot Areas when compared with the others. Very limited type of maintenance work has been done in those areas, as shown in Table 3. Most of these activities are desilting and clearing work done through community voluntary participation (Shramadana). Although one innovation specifically designed for the Pilot Areas is the appointment of a Water Manager (Jala Kalamanakaru) and a full-time Water Management Assistant (Jala Palana Sahayakas), Table 4 indicates that the implementation of these activities is also not very effective.

The emerging evidence from the over-all performances of activities in the Pilot Areas shows that in spite of the concentrated efforts by the Consultants and IMD/ID officials in the Pilot Areas, the innovations attempted in these areas failed to make a significant impact upto October 89.

Table 4: Availability of Water Managers and Irrigators in October 1989.

Project	Pilot Project Area	Water Manager	Irrigator
1. PSS	Damana Gemunupura	Not appointed	Not appointed
2. Giritale	Chandana Pokuna	Appointed but has not assumed duties	Appointed but has not assumed duties
3. Minneriya	Kusum Pokuna	Not appointed	Not appointed
4. Kudulla	CP Pura, Perakumpura	Appointed but has not assumed duties	Appointed
5. RBE	Magallegama	Not appointed	Not appointed

3.2 Changes Now Taking Place

An analysis revealed that in 1984 when the FC level representatives were first selected by consensus, some non-cultivating owners and non-owners such as mortgagors and lessors had been chosen as FC level representatives and even as D canal level organisation Chairmen. It is generally felt that such persons were not suitable as they were more interested in the prestige of holding office than in the service they could render to the farmers through it.

Although such instances are not of high statistical significance, the appointment of persons with no commitment to the well being of the immediate community appears to be counter-productive. Clearly, the solution to this problem lies in the farmer representative selection/ election procedure.

At present, the majority of the farmer representatives do belong to the owner-operator category. In part, this is due to the introduction of an electoral process to elect a representative. The ISMP has an "awareness programme" which may also have contributed towards the above. There is a view that the selection of a farmer representative at FC level should be based on a "consensus" approach, the justification being that an electoral process is likely to create divisions among the farmer community at its primary/grass-roots level. However, the disadvantage is that the more influential people may not be challenged even if they are not the popular choice, if there is no possibility of a secret ballot. The presence of factions, cliques etc. is the reality within land settlement schemes even at FC level. It is well known that these communities are of a heterogeneous nature and not homogeneous. The attempt to preserve the unity of FC level farmer community by resorting to a consensus approach when farmers are already divided on the basis of various other socio-politico-economic considerations does not appear to be something important.

The operational performance of the system by DCLOs is not superior in the Pilot Areas when compared with the others. Very limited type of maintenance work has been done in those areas, as shown in Table 3. Most of these activities are desilting and clearing work done through community voluntary participation (Shramadana). Although one innovation specifically designed for the Pilot Areas is the appointment of a Water Manager (Jala Kalamanakaru) and a full-time Water Management Assistant (Jala Palana Sahayakas), Table 4 indicates that the implementation of these activities is also not very effective.

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In fact in many instances it was observed that some farmers do not listen to requests made by the Field Representatives (FRs) merely because of local social conflicts. To the face of the FRR many farmers do not show any sign of objection, but in day to day activities one could recognise the sign of conflicts. Many farmers feel that these conflicts are due to the disharmony between them from their childhood.

The DCLOs are now being re-organised prior to rehabilitation work being done under ISMP. In 1988 there was a Pilot Area in each scheme. In 1989 there were 26 Implementation Areas (out of a total of over 90 SPC areas). The I.OO. are expected to make farmers realise that they must elect good and effective F.C. level representatives rather than "traditional" leaders. They conduct secret ballots to enable this change to take place as people do not want to vote openly against "traditional" leaders. The names of the candidates are written on slips of paper which are given to each voter to mark his preference and the results are announced there and then. The elections for 5 or 6 F.C. areas are held in the same building and the names of those elected are announced to the whole crowd of voters.

The farmers in each F.C. level area are allowed to choose by consensus who should be entitled to vote in respect of each land e.g. owner/ operator/ encroacher/ mortgagee/ tenant. Once F.C. representatives for the whole DCLO are elected they function as a pro-tem committee to draw up laws and a constitution for the DCLO (based on a draft given by Sheladia). They then nominate and elect the President, Secretary and Treasurer of DCLO, also by secret ballot. There is a subsequent meeting of all the farmers in the DCLO area at which the elections of the F.C. representatives, President, Secretary and Treasurer are ratified. This gives them more authority. The indirect election of the President, Secretary and Treasurer is better than direct election by all the farmers in each DCLO as it ensures that they come from different F.C. areas and also because it reduces disputes owing to uncertainty as to which farmers are entitled to vote. Direct election could cause election rigging.

It is now felt that the "current" leaders who are being elected by secret ballot by the farmers in the 5 + 22 reorganised DCLOs are better motivated and more effective. It is felt that this change of leadership will be a decided improvement. However, it is too early to be sure of this as the new DCLO have functioned for less than one year. There are enough educated farmers (the sons of the original settlers) who could replace the government officials who were functioning as farmer representatives in FC level farmer groups.

Sheladia feels that as the official Project Committee is chaired and controlled by the Project Manager and has other officials in it (although it has a majority of DCLO representatives who represent farmers) there should be a parallel Project Level Farmer Organisation with office bearers who are DCLO representatives. Its view is that the Project Committee should deal with Administration and Policy co-ordination between governmental agencies. The Project Level Farmer Organisation should deal with representations of political authorities, lobbying, agricultural inputs etc. It should serve as an apex body to strengthen the DCLO and also prepare agricultural plans for the project.

The present study has revealed however that the formation of parallel "Project Committees" and "Project Level Farmer Organisations" as envisaged by Sheladia would be counter productive. It would lead to friction between farmer representatives and officials. At the Project Level there is no alternative to a "Joint Committee" of farmer representatives and officials. Ultimately this Joint Committee has to be given responsibility for "joint management" of the project by being established as a "Project Management Committee".

There is also a "Joint Consultative Committee" consisting of the DDI as Chairman, the Project Managers, the I.EE and SAI Consultants, which monitors the overall irrigation activities in the ISMP.

Under the special condition of financial and human resources of the ISMP, it is easy to encourage the formation of different "organisations" for different purpose wherever a "felt need" is made known by the farmer representatives to the officials. But some farmer

representatives themselves in a discussion with TEAMS raised the question whether even the DCLOs themselves will after a few years be left aside if not dissolved by the government just like the Cultivation Committees under the Paddy Lands Act of 1958 in 1971. The ISMP has succeeded in breaking down the resistance to "government sponsored peoples" organisations". It is difficult to justify however the encouragement of setting up of ad-hoc groups, committees, organisations which can grow as fast as mushrooms in a bed of straw, and perish when the straw is removed.

In all four projects the farmer groups meet informally mainly to attend to water issue problems and to do the maintenance work on their field canals. This too is often allocated by the traditional method to individual farmers each of whom is expected to maintain a demarcated length of canal which may not necessarily benefit his own field. Although it is difficult to find records of meetings of the FC level farmer groups to decide on making representations to the DCLO level or to the officials concerned regarding problems that they cannot resolve internally, it is evident that there may be many such informal meetings. There is no data as to what percentage of the farmers in the group attend the meeting and actively participate in the proceedings.

On the other hand, there is a wealth of material regarding the meetings of DCLOs, particularly in the four schemes in the Polonnaruwa district. The statistics in **Tables 5 & 6** show that the average number of meetings per DCLO in the first 9 1/2 months of 1988 and 1989 respectively were as follows:

Scheme	1988	1989
Parakrama Samudra	5.6	5.0
Giritale	5.4	2.6
Minneriya	4.0	6.8
Kaudulla	4.8	4.0
Ridi Bendi Ela	NA	2.1

Table 5: STATUS OF DCLOs AS AT SEPTEMBER 1988

Scheme	Number of DCLOs	Number of DCLOs Meetings held 1.1.88 to 18.9.88	Status of Secretary		Number of F.C. Groups	Status of F.C. Reps.		
			Govt. Officer	Not a Govt. Officer		Allotee/ Offspring	Tenant	Encroac
Parakrama Samudra	22	123	9	13	236	217	4	-
Giritale	7	38	4	3	118	124	2	-
Minneriya	13	53	6	7	251	213	6	-
Kaudulla	20	96	0	20	345	316	-	24
The Total of the four schemes	62	310	19	42	950	870	12	24
Ridi Bendi Ela	N O T A V A I L A B L E							

Source : End of Tour Report by John Wilkins

Table 6: STATUS OF S.P.CC AS AT SEPTEMBER 1989

Scheme	Number of DCLOs	Number of DCLOs Meetings held 1.1.88 to 18.9.88	Status of Secretary		Number of F.C. Groups	Status of F.C. Reps			
			Govt. Officer Yes	Not a Govt. Officer No		Allottee/ Offspring	Tenant	Encroachers	T
Parakrama Samudra	24	119	1	18	200	201	-	-	2
Giritale	7	18	5	2	130	139	3	1	1
Minneriya	17	116	6	16	262	243	1	18	2
Kaudulla	20	80	0	20	354	321	33	-	3
The Total of the four schemes	68	333	12	56	946	904	37	19	9
Ridi Bendi Ela	10	21	1	9	156	134	22	-	1
The Total of the five schemes	78	354	13	65	1102	1038	59	19	1

Source: Based on Teams Questionnaire

Notes: - There are instances where joint Secretaries have been appointed to a single DCLO.
- Some DCLOs are being recognised

The high level of unrest and violence in 1989 does not appear to have caused any substantial reduction in the level of activity of the DCLOs except in the case of Giritale Scheme.

Undoubtedly farmers are being "mobilized" at the FC level and once they are mobilized, farmers participate in informal groups to discuss, complain and express views related to irrigation-based problems. On a review of a large number of events where farmers and their representatives have participated, it is easy to conclude that these groups were in reality farmer representations rather than farmer organisations. It was observed that until late 1989 many DC level farmer organisations were also demonstrating the characteristics of farmers being mobilised rather than being organised. However the results in 1990 are encouraging and many DCLOs demonstrate that they are farmer organisations in its real sense.

Although the government has decided that Farmer Organisations should take over the maintenance of FCs and DCs, the situation in the field as at the end of 1989 was quite different. The broad spectrum of views expressed as at the end of 1989 are summarised below. The names and designations of those who commented on these issues are withheld as many of them do not want to comment critically on government policy.

a) <u>Farmer organisations should not undertake the construction or repair of structures even of FCs</u>

This view is held by some line department officials involved in community development work, which they find difficult to reconcile with economic activities. It is also held by some Irrigation Department officials who feel that people's organisations should not encroach on the preserves of contractors. A small minority of farmers hold this same view on the basis that government should do virtually everything for them.

b) They should undertake them only in FCs This view is held by some farmers as well as officials of line departments and the I.D. who believe that the capacity of farmer organisations to undertake contract works in DCs is in-adequate. A few IOs also feel that in view of the resistance of many officers of the I.D. farmer organisations should not at this stage venture beyond the FCs.

c) They should not take over either the operation or the maintenance of D canals until they have been duly handed over after completing all the formalities laid down in the DI's circular of January 1989. This view is held by farmers and officials who consider that farmer organisations are capable of undertaking such works but feel that if the farmers take them over prematurely, the I.D. may disclaim liability for rectifying the defects which they should do or get done so that farmer organisations will thereafter be able to maintain and operate them within their level of capability.

d) They should take over the operation and maintenance of the smaller D canals and all FCs. only: This view is held by farmers and officials who consider that farmer organisations are not capable of undertaking the O & M of "large" D canals. In this connection it is worth drawing attention to the examples quoted in the section of this report on the areas of authority of D canals. D canals vary in command area from 50-5000 acres. There has been some inconsistency in the classification of certain canals as F canals, others as D canals and others as Branch canals. The smaller D canals may have the characteristics of F canals even though they take off from a main or branch canal; the large D canals may have the characteristics of Branch canals.

e) They should take over the operation and maintenance of all D canals and F canals in the implementation areas This view is held by many officials of the I.M.D., the I.D. and by many farmers. They believe that in the 22 Implementation Areas selected for 1989 the I.D. was ready with the funds, designs and

estimates to enter into contracts with the farmer organisations for the pragmatic rehabilitation of the canals. If the rehabilitation was successfully done, the farmer organisations could then continue to maintain and operate them. The majority of farmers and farmers' representatives that TEAMS interviewed, as well as the majority of IMD and ID officials' held this view. The DCLO farmer organisations in these areas were re-constituted after elections under the new procedure in 1989 and are likely to be more capable of carrying out their functions successfully. This approach would seem to be the most positive one that has a reasonable chance of success. However a note of caution is necessary as (a) the civil disturbances in 1989(b) the shortage of cement in the second half of the year resulted in very little work being done. It may be beyond the capacity of the I.D. and IMD and of the farmer organisations themselves to maintain the original programme of rehabilitation work for 1990 while clearing the massive arrears from the 1989 programme.

f) <u>They should take over the O & M of all D Canals and F Canals</u> This view is held mainly by officials of the IMD and by farmers who would like to "force the issue". While their enthusiasm is commendable, this course of action could result in a breakdown of O & M in 1990 and increased resistance to farmer organisations on the part of some officials of the I.D. If such a breakdown happens it is likely to be used by many of those, both farmers and officials who have not really accepted the goals of the ISMP, to press for a reversion to the old system of O&M by the I.D. and contractors without the participation of farmer organisations.

3.3 Different Perceptions on Farmer Organisations

As indicated above different farmers and officials possess different views on farmer organisations, their role and goals. This sub-section highlights some real-world observations made towards the end of 1989 as examples.

(i) Information obtained through a discussion with IOs of PSS

(a) *IOs were able to organise shramadanas to clear FCs in some of the SPCs. In the DCLO of Galthambarawa, the I.O. tried to make a list of participants in such a shramadana (since IOs were instructed to prepare such documents for official purposes) and later on it was not done since farmers were opposed to that (now the IOs are reporting only the number of participants in each programme). These objections were because farmers think that the officials of ID claim money from the Department, showing that they have done such clearing work.*

(b) *Farmers are requested to make a preference list for the maintenance work in their DCLOs. Through their farmer organisations the majority of the DCLOs have already fulfilled this task. But later, some of the SPCs have realised that the money has been allocated by the ID to areas having lower preference, instead of to the most cost effective work to be done.*

(c) *IOs feel that the farmer organisations at lower levels such as FCs and DCLOs are organised well at present. But sometimes, the farmers get de-motivated when they see that the Servicing Institutions are not in a position to provide them the required services. For example bank facilities are insufficient, it is difficult to get fertiliser through the Agrarian Services Department. According to IOs lack of communication between the IMD and other departments has caused such problems. IOs feel that other departments do not receive the proper instructions through official circulars.*

(d) *The relevant officers such as Work Supervisors, Technical Assistants and the Irrigation Dept. officials do not participate in the meetings regularly, and therefore they are unaware of farmers' problems. These officers are*

benefited, if the farmers try to bring their problems to them individually. When the problems are presented through Farmer Organisations the officials have to solve the problems merely as a duty.

(ii) Kaudulla - An interview with office-bearers of four DCLOs

Farmer Representatives further said that the Department of Irrigation was responsible for the delay and they were also of the opinion that the Department of Irrigation is unwilling to handover the Rehabilitation work to farmers. As an example they told us how the Kalinga D canal organisation was underpaid when it did a contract (FC canal) and even that was delayed they added. One Farmer Representative quoting another incident said that the Irrigation Department had once ignored their request to prepare estimates for some FC canals which needed immediate attention and on the other hand had submitted estimates for some other FC canals. In addition to that, when they had asked from the I.D. how much had been allocated for contracts the Farmer Representatives told the consultant that officers of the I.D. were a bit reluctant to reveal the amount approved. Further they said as the cultivation had been done according to the 'Bethma' system in that season, much of the Rehabilitation work could have been commenced. Farmer Organisations are now being discouraged, they said because the I.D. is in the habit of cutting the promised payments from their contracts while all the profitable contracts are being given to Private Contractors.

(iii) Giritale - An interview with farmers

After participating in a good number of FC,DC and SPC level meetings and also having met opinion leaders, farmers and so forth, what the consultants of TEAMS were being made to understand was that farmers have doubt whether the concept of a Farmer Organisation would be a meaningful one. Due to certain circumstances encountered by them, Farmer Representatives, and even officers do express this opinion. In accordance with instructions given to them, submitting decisions that are being taken at the grass root level to higher ups is an important

activity of the Farmer Organisation. Though that had been done, very often those decisions had been hacked or altered at a higher level. Why should they organise farmers they ask, if the important decisions that had been taken by farmers are to be treated in that manner.

(iv) Observations at a Project Committee Meeting of PSS

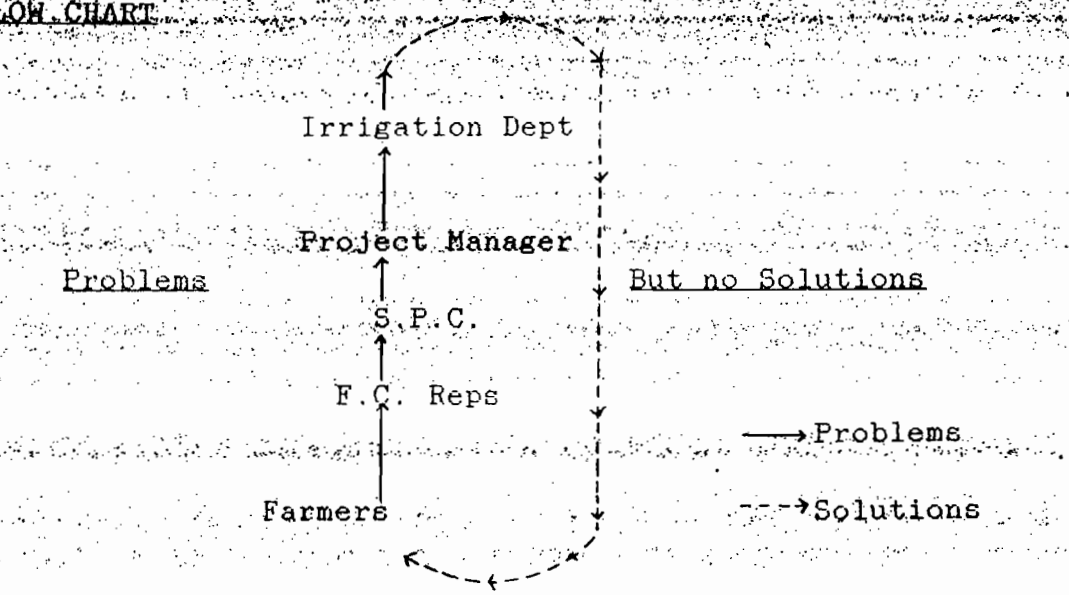
Three of the D canals have been rehabilitated under the ISMP. Some SPC have undertaken and satisfactorily completed contracts of less than Rs. 250,000. Final payments have been made. There was no criticism of ID for delays etc. in these contracts. The IE explained the arrangements to give further contracts during the next close season to SPC. He will provide materials e.g. steel,metal if necessary; even cement which is in short supply. I.E. said that a portion (50%?) of O&M funds will be retained for expenses of ID staff e.g. travelling of TAA. The funds used to pay Turnout Attendants (Patrol Labourers) whose services will be terminated will be made available to DCLO. The funds may not be adequate to pay for labour used for earthwork in D canals in full - perhaps 50%. Hence shramadana for this purpose should be encouraged.

The I.E. asked SPC to indicate which D canals they were willing to take over for O & M on this basis. He said rehabilitation works cold be done after take over if they had not already been done. Several DCLOs agreed. The I.E. was more positive than some DCLOs. (An excellent attitude and communication skills on the part of the I.E.)

(v) Minneriya - An interview with some IOs

IOs indicated that, they have noticed that some problems regarding water are being sent up to higher ups seeking solutions as in the Flow Chart, but very seldom do solution reach the farmer who needs them. They seem to be aware of this hierarchical relationship.

FLOW CHART



IOs are of the opinion that the future of the Farmer Organisations depend on the benefits that the farmer would get without any hindrance.

(vi) Giritale -Notes made on a visit to Chandana Pokuna

ID has avoided handing over a single D canal for operation or maintenance. One or two contracts were signed in Implementation areas in mid 1989 but no work work done for want of cement. DCLO is more backward than in PSS and Minneriya. There is a poor relatinship between I.D. vs. IMD and FOs. Promises given by D.I. on his visit (e.g. re-use Amunas) are not fulfilled.

(vii) Giritale - An interview with a DCLO Chairman and Farmers

The DCLO Chairman and the other farmers met in this instance, indicated that the clearing of the canal bunds, desilting were very poorly attended to by the ID. The consultants of TEAMS were able to observe that the trees grown by the concrete structures are grown with thick trunks while only the branches are being cut, without uprooting the whole tree. The farmers further said that although the ID estimates a particular job - say clearing or desilting, they perform it to a minimum level. In fact they said, they organised a 'Shramadana' to desilt the D.C. where nearly 60 farmers worked for three days.

Hitherto, these maintenance works had been organised through the I.D. However farmers are reluctant to do shramadana since whenever they do these, the I.D. officials put in some check rolls and claim the money. With all these complaints the consultants of TEAMS observed that there is considerable displeasure between the DCLO officials and the ID officials.

One DCLO Chairman criticised the activities of certain "Jala Palakas". The DCLO Chairman says that because of these exposures the I.D. range officials of the area are now against him.

(viii) Minneriya - An interview with a group of farmers

The group of farmers whom the Consultants met at Hathamuna say that the multiplicity of officials of four different organisation (I.D., IMD, C.A.S. and G.A.)is disadvantageous to them. They do not know to whom they should go regularly for a water issue requirement or a dispute; they are referred from one to the other until finally they get a letter acceptable to the T.A. or W.S. who gives instructions to the Patrol Labourer. By that time the rotational issue to their section of canal may have finished and their fields suffer water stress until the problem is solved during the next rotational issue to their section. There are no such things as "F.C. level farmer organisation", although there are "F.C. level representatives" selected by consensus under the INMAS Programme. As far as they were aware there were no regular monthly meetings of a DCLO level farmer organisation. They were aware of the Kanna Meeting (seasonal cultivation meeting) for the Minneriya Scheme and the meetings of all farmers at the SPC level in each SPC area at which the decisions taken at the Kanna Meeting were announced and arrangements made for their implementation.

(ix) Minneriya - An interview with a DCLO Chairman

The Chairman said that in the constitution of the SPC there is a clause to the effect that, "the estimates of the works should be done in consultation with the Farmer Organisation".

However, the DCLO Chairman observed that these conditions were not adhered to when the estimates were made by the ID Officials. Although the contracts for some of the construction works were signed by the farmer organisation and some farmers, they did not get proper estimates. Works on the D canal was done by a group consisting of TA, Patrol Labourers etc. The ID had given the rehabilitation works of RBI (field canal) to some contractors outside the area. The farmers have questioned why these irregularities happened. ID promised to provide material such as pipes but they did not do it properly. Some pipes were brought and unloaded at Kaudulla, 2 1/2 miles away from the work site.

According to the DCLO Chairman, the ID officials wanted to do some work spending Rs. 62,000/- at "Ginipetti Palama", which will provide water for only 7 Ac. However, the farmers wanted to build an anicut where a large number of farmers would be benefited. Similarly the ID wanted some works to be done in FCs 31,32 and 33. However, farmers disagreed to this. The works of 5 FCC were to be done under the instructions of 5 TAs. Although the farmers assembled several times to get the work moving, since all the 5 TAs were not available at any time the work did not proceed.

It is interesting to note that there has been a substantial improvement in the situation in 1990. The unequivocal guidelines that should preferably have been issued jointly by the ID and IMD from the central office to their district level staff have begun to reach the latter through the Minutes of the Steering Committee in Colombo.

With these developments one could observe that the DDI and the IEs are positively supporting the process of handing over of the O&M of DC system and its rehabilitation to DCLOs in 1990. However, it is possible to observe that some resistance still exists at the level of TAs and WSs, particularly in the Minneriya and Giritale Schemes.

4. FUNCTIONAL ENVIRONMENT

The external environment is a major factor impinging on the process of institution building with a focus on grass-roots-level farmer organisations. External environment here may refer to a complex set of important variables such as:

(a) the immediate surroundings of the farmer organisations, exemplified by the changing socio-economic and political conditions and formal organisations associated with irrigation and agriculture,

(b) the national-level policy environment, exemplified by changing ideology, new policy formulation, values and interests of various actors involved, and

(c) the past experiences of the farmers conditioned by old policies and their implications. In this section, an attempt is made to deal with the above factors in some detail in the light of empirical evidence that has surfaced during the course of the present study.

4.1 Historical and Situational Differences

Ever since the Cultivation Committees were established under the provisions of the Paddy Lands Act of 1958 several divergent approaches have been taken by the State to promote farmer participation in programmes for irrigated agriculture. In 1965 a Special Project Programme which can de described as a precursor of the INMAS was implemented but the participation of farmers in the programme was confined "to obtain farmer support to implement a programme which the Government thought was important to increase paddy production" and overcome problems caused by economic difficulties in the country. The agricultural productivity committees of 1971-1978 were dominated by officials nominated by the Members of Parliament. They did not have a grass roots mechanism for the genuine election of office-bearers by the farmers. They were used from the inception for the

implementation of the unpopular Paddy Monopoly Scheme by the State. Owing to over centralisation these committees failed to deliver the inputs the farmers required at affordable prices and in time.

With the enactment of the Agricultural Productivity Law, the Government focused attention at a level which was above the grass root level activities identified with the Cultivation Committees to develop a planning perspective for peasant agriculture. It was considered that the area covered by the Cultivation Committee was too small for a planning unit. It was therefore considered necessary to have the Agricultural Productivity Committee to coincide with the boundaries of a local authority. The Agrarian Services Committees which replaced the Agriculture Productivity Committees in 1978 also used the same areas of authority. Both these organisations failed to recognise the organisational dimensions of major and minor irrigation schemes so as to have organisations and groups which could be responsible for the allocation and distribution of water in these schemes.

In this respect, it must be mentioned that the more recent INMAS programme appears to be the most comprehensive and organised attempt to promote farmer involvements in agricultural enterprise under small scale farming conditions. This programme was however preceded by several isolated experiments such as in the Minipe and Kimbulwana Oya project and more importantly in Gal Oya where the most comprehensive research and development process for the establishment of farmer organisation was implemented. Lessons learnt in this programme helped in developing the institutional approach which distinguishes the INMAS programme from all others owing to the pre-eminent position accorded to farmer participation in its development strategies for development.

A significant feature of this programme is the role of bureaucracy in the implementation of these strategies. Farmer participation will have to take place with the assistance provided by field level officials and others who are specially designated for that work. Therefore much of the success of the programme will depend upon the commitment of the Government officials to implement the

programme in the way it has been conceived by the IMD. In this respect, IMD has to play a facilitating role as symbolised by the way in which the project manager is expected to perform his duties. Much depends on the degree of active participation by other line agencies in lending support to this programme, in which ID personnel have the most critical role as officials representing the agency allocating and distributing irrigation water. It has already been reported that where ID personnel have taken the initiative to embark upon participatory management systems the response from the farmer community has always proved to be excellent. The entire strategy for farmer participation will take the form of a human resource development programme within the broad framework of a communication development process.

What are the historical and situational factors which effect the five irrigation systems? Are there any similarities ? What differences exist between them ? In the next few paragraphs, an attempt is made to deal with these issues in tentative terms.

As is well-known, Kaudulla is the most vulnerable system in terms of water availability as its catchment is very small. It gets the bulk of its water from Minneriya which in turn gets water from Elahera-Yoda Ela. The most affected farmers are in stage II and at the tail-end of stage I. This is partly reflected in the fact that the cropping intensity according to the latest figure is 125% to 175% per annum. In the other systems, it ranges from 175% to 200%.

The INMAS programme has been launched in the five systems. This has been followed by the ISMP. As for the actual process of institution building, there are similarities as well as differences, both within and between systems. Let us first look at the similarities.

In all the four systems of Polonnaruwa, D-canal organisations and project committees have been established. Yet, the most obvious feature in all the system is that the D - canal organisation brings together the FC representatives. While FC groups have also been formed in some areas of these systems, most of them still remain fluid and do not bring together even a majority of farmers in FC areas.

In all the five systems, the project committee system has not yet been fully integrated into system management. This is partly due to the tension that prevails between the project manager and the ID officers. Since the IMD officer is directly linked to the IMD in Colombo at the system level he virtually operates within an administrative vacuum. The proposed appointment of the GA as Additional DD/IMD may remedy this problem to some extent. However, in the four systems in Polonnaruwa, Project Managers appear to have made headway in getting the D-canal level organisations functioning.

There is evidence observed in the field which suggests that many ID officials do not share the same perception of participatory management as is projected by the IMD. This is indeed unfortunate because a negative attitude by officials dealing with the irrigation needs of farmers can undo the positive aspects promoted through programmes for participatory management. At the same time it is necessary to ensure that the new institutional order should co-exist with other forms of organisation which have designated functions assigned to them.

Policy making in respect of participatory management has taken an important step forward by adopting a decision to hand over the operation and maintenance work in distributory channels to farmer organisations. Here again, the active support of the ID personnel will be a critical factor to ensure that farmers would be able to develop and sustain an effective management in the distributory channel areas. In a similar way, the programmes to share increased management responsibility with farmers will have to concentrate on developing the necessary capacity among farmers to take over new responsibilities.

The analysis revealed that the situational and historical differences do affect the growth of F.OO. and hence is important to bear in mind when comparison is made between the different systems. PSS, Minneriya and Giritale have generally had enough water from the Mahaweli Scheme for a cropping intensity of nearly 200%. However, there are important situational differences even between schemes in

the Polonnaruwa district. For example, the difference in the water between PSS which is fed from Angamedilla Diversion and others which are fed from Elahera-Minneriya Yoda Ela should not be forgotten.

It was also found that a high degree of "dependency syndrome" is much more evident in the four schemes in the Polonnaruwa District. It is interesting to note that in these 4 schemes decision making in the past with regard to construction, maintenance repairs, extent to be cultivated and even the details of water issues depended on the interaction between the farmers and the late Mr. C.P. De. Silva in his successive capacities as a Senior Government Official and as the Minister of Lands and Irrigation during the 1948-1977 period. Such traditions die hard.

As a special situational factor it is necessary to note that, terrorist activity has affected all five schemes in various ways. In the Polonnaruwa district the staff of the Irrigation Department was unable to attend to water issues for varying periods during the first half of the Maha 88/89 season. The farmer representatives then had to take it upon themselves to operate the structures in the main and distributory canals. Our assessment is that this experience did something to reduce the "dependency syndrome" which had developed amongst the farmers in this district during the period 1948-1970. At least some of the farmer representatives did perceive that in the absence of officials they would have to and could carry on their water distribution functions by themselves.

During the Yala 1989 season when the officials could not safely move away from the head sluice, main and in some cases the distributory canals for several days at a time the DCLO representatives generally became still more positive in their attitude towards the taking over of distributory canals for O & M from the Irrigation Department. This was more noticeable in the Kaudulla Scheme where there was a partial breakdown in the administration owing to terrorist activity.

In the circumstances the field staff of the IMD and the ID deserve commendation for their high degree of participation in DCLO and Project Committee Meetings, which gained acceptance from both subversive and counter-subversive groups as being non-partisan in nature. The record of meetings of DCLO in Polonnaruwa district should be considered excellent, considering the environment in which they were held. Unfortunately the varying degree of resistance that became manifest in the second half of 1989 (when security conditions gradually improved) on the part of ID staff towards the actual handing over of O & M and the entrusting of rehabilitation contacts to DCLO has substantially retarded the enthusiasm of farmers to take on these functions. Broadly speaking, they feel that ID staff want to discredit the policy of handing over these functions to people's organisations so that they can retain "control" of them.

4.2 Inter-institutional Background

In terms of inter-institutional linkages the functional relationship between the ID and IMD is extremely important. During the early part of this study symptoms of conflicts between IMD and ID have surfaced on several instances. Some of such incidents were already described in Chapter 3 and few more are given below.

- *At the Project Committee meeting of Parakrama Samudraya held on the 22nd August 1989, serious allegations were made by a TA that one of the Project Manager's statements to the farmers about the availability of funds for rehabilitation of field canals, had made it very difficult for the field officers to face the farmers.*

- *The out-comes of the Focus Group discussions among the Project Managers indicate that in general the TAA are not in favour of the handing over of maintenance work to farmer organisations as they would lose some of the benefits enjoyed by them.*

- *On the other hand when TAA were interviewed, they were of the opinion that, many farmer organisations consider that their duties are "to report the matter" to IE rather than taking action by them selves. They also complained that some IOO give false hopes to farmer organisations that they can get substantial funds from the ISMP, and that some IOO take sides with farmers who resort to irregular activities. Another grievance of the TAA was that the IMD staff and even the farmers get trips abroad while most TAA are never rewarded in that manner.*

In the second half of 1989 the farmers were aware that the management of water distribution is to be handed over to them. There is enough evidence to indicate that the farmers are not very happy about the way Irrigation Department labourers now do the clearing work in the distributory and main canals. They complain that, very often, the silt and extraneous material extracted from the canals are left on the canal banks when they will fall back into the canal with the next heavy shower. In addition, even in instances where the farmers themselves attend to the clearing of the canals without payment, departmental labourers and supervisors tend to draw full payment for such works.

The observations indicate that the Work Supervisors, Technical Assistants and other ID officials do not regularly participate in meetings and are therefore not fully aware of actual field level problems of the farmers. This situation becomes further complicated as many farmers are of the view that the Irrigation Department officials prefer farmers to submit their problems to them individually as this would guarantee a better response while creating a way for the officials to obtain personnel benefits from the farmers.

There were instances where certain rehabilitation works relating to FCC and DCC were given to private contractors and the work had not been satisfactorily carried out by the Contractor. In a few instances the FC representative had submitted matters to the higher authorities but no remedial action was taken.

In a particular incident the Irrigation Engineer and the Project Manager had visited the site but had instructed that matters of this nature should be brought to the notice of the Technical Assistant. The FC representative had felt humiliated as this instruction had been given in the presence of the farmers. The farmers had subsequently questioned the capabilities of farmer organisations in handling problems of this nature.

In some rehabilitation contracts, the DCLO had signed contracts for construction works on prepared estimates but the escalation of cement prices had posed a problem and had affected work progress. The rise in the prices of cement had been brought to the notice of the Irrigation Engineer, but he had indicated that he was unable to help in this situation. Under these circumstances there was bound to be delays in the completion of construction works.

The Farmer Organisations encountered several constraints in attempting to execute many maintenance work given by the ID as many of the ID estimates for these works were found to be unrealistic. It was also alleged that there were deliberate delays and bureaucratic red tape which hindered progress. In addition, the farmers found that the ID field staff were reluctant to give proper instructions in the field. According to certain officials these problems were created by the field staff to discredit the construction capabilities of the Farmer Organisations.

Many officials and farmers feel that there is considerable displeasure between the IMD and ID officials since the ID had much to lose with the involvement of the IMD. In fact it has been suggested that no opportunity is afforded to the DCLO to efficiently carry out construction works, so that the IMD approaches could be proved correct.

There were many occasions where the Field Investigators of TEAMS involved in the present study, who were attending meetings of FOs noticed that farmers were trying to discredit the ID officials. From the point of view of institution building such a situation is

extremely unhealthy. In certain incidents, the farmers have complained that only very few items relating to maintenance have been completed by the ID and even those completed have been of poor quality.

Although complaints and criticism of this nature have been made there are other instances where the ID officials are being highly praised. For example, many farmers and officials have shown their gratitude to the ID officials for the manner in which they had arranged the distribution of water during July, August and September of 1989.

The picture has begun to change for the better in 1990, particularly where the attitude of the ID is concerned. Although the ID is previewed to be a monolithic aggregation, the changes in governmental policies are gradually filtering down within it. Specially, at the levels of the DDI and IEs there is a broad general acceptance of the policy change and of the role of FOs in O&M. At present there are no sufficient institutional mechanisms to motivate the cadre of TAs and WSs to change their attitude to suit the new policies. It is difficult to visualise the emergence of a healthy institutional environment where middle level ID officials who interact directly with the DCLOs, are able to accept the "winds of change" in policy and institution building.

In terms of inter-institutional linkages, another key problem area is the relationship between the IOs and Vel Vidanes (VVs). In fact in all the 4 schemes of Polonnaruwa it was possible to note incidents where farmers feel that some IOs tend to destroy the image of VVs rather than promoting FOs. Undoubtedly this is an area where communication improvement is urgently needed.

The observations made during this study clearly indicate that although the irrigation schemes under ISMP are in an advantageous position by benefitting from the ongoing exercise of institution building through farmer organisations using a catalytic process, the inter-institutional conflicts not only retard the process but also acts as a process moving in the opposite direction. In fact it is quite evident that apart from creating an

awareness among farmers there is a need to improve the awareness among officials too about institutional building under ISMP.

Other than the IMD which acts as the main "catalytic institution" in developing FOs, there are many line-departments with certain functional responsibilities which are important from the point of view of the functioning of FOs. Therefore, the inter-institutional background relevant to the irrigation projects under review needs to be understood in the light of the basic functional inputs of these institutes.

There are several institutions or line-departments which play an important role by being represented in Project Management committees via middle level field officers. These institutions, include the Irrigation Department, Land Commissioner's Department, Department of Agriculture, Agrarian Services Department and the Agricultural Development Authority. There are other organisations such as the Department of Animal Production and Health, Agricultural Insurance Board, Department of Co-operative Development and Commercial Banks etc., which also make valuable contributions to the functioning of the FOs.

The importance of the inter-institutional inputs of the line-departments in the functioning of FOs could be visualised from the "activity summary" given below:

i. Irrigation Department

- Maintenance of head-works and the canal net-work.
- Civil works of rehabilitation of irrigation system
- Operation of the Irrigation System, including planning, implementation and monitoring of water distribution.

ii. Land Commissioner's Department

- Solve land disputes
- Land regularisation work
- Collection of O & M fees
- Liase with I.D. officials to resolve irrigation problems
- Assist in the prevention of Irrigation Offences and in the prosecution of offenders
- Social welfare of settler families

iii. Agriculture Department

- Agriculture extension, crop diversification and crop protection for higher productivity and higher incomes
- Farmer training in agriculture and on farm water management
- Supply of seed materials.

iv. Agrarian Services Department

- Supply of inputs through Agrarian Service Centres - Agricultural Credit through banks
- Crop insurance arrangements with the Crop Insurance Board
- Initiate action in cases of damage due to animal trespass.
- Implementation of the Agrarian Services Law
- Assist in establishment of farmer organisations for water distribution

v. Agricultural Insurance Board
- Provide insurance for crops and make indemnity payments for crop failure.

vi Agricultural Development Authority

- Monitor levels of supply of all agricultural inputs and help in provision of suppliesr when shortages occur
- Assist in the marketing of agricultural produce

vii. Department of Animal Production and Health

- Develop animal husbandry
- Provide veterinary facilities
- Farmer Education and training on animal husbandry

viii. Commercial Banks

- Agricultural Credit

The analysis revealed that these institutions tend to operate independently at present without adequate co-ordinated effort. The organisations concerned act with the belief that their functions are "ends" in themselves rather than "means" for integrated agro-based development in irrigation schemes.

An important activity where the inputs from most of these institutions are pooled together is in making decisions regarding the cropping calendar. On several instances in the study it was clearly seen that, due to the lack of proper understanding, the importance of adhering to a specific cropping calendar has not been clearly understood and followed by the farmers. *For example at the Project Committee meeting of PSS held on the 22nd August, several ISPC representatives requested issue of water to be extended since some farmers have cultivated 4 month varieties inspite of the recommended 3 month varieties. According to the subsequent discussion that developed, it was clearly explained that, those farmers who cultivated late varieties have fallen in to this difficulty as they did not comply with a decision taken at the previous kanna meeting.*

The same issue was taken up at the Project Committee meeting in Minneriya held on 8th September, where the chairman of four DCLOO namely Kumaragama, Gal Amuna, Hathamuna and Kusumpokuna requested extended issue of water, inspite of the decisions taken at kanna meetings. These are merely two examples of a common symptom of not adhering to important decisions taken by integration of several related line institutions based on their individual technical and managerial issues, but directed towards common objectives. The pre-kanna and kanna

meetings are two activities which take place at the very inception of a new cropping season, which are represented by almost all the institutions contributing to the goal - Integral Management of Resources in Major Irrigation Schemes for Improved Agro-based Productivity. The impact of the important decisions taken at these meetings on a collective basis, if not properly implemented will get either lost or diluted. The development of the Farmer Organisations into well established institutions, where the members - the farmers can undertake activities on a collective basis for their common good will facilitate the implementation of these important decisions.

It was observed that despite farmers being organised little progress could be achieved, if the functional departments tend to operate within compartmentalised grooves. The study noted many instances where officials of one institution criticise the officials of another organisations not as a "corrective measure" but more as a way of "scoring a point" without much effort. It was also found that there was little improvement in the relationships between farmers and officials of the line-departments inspite of efforts on institutional development and strengthening of farmer organisations.

It was found that the long term benefits of institutional strengthening of farmer organisations can only be realised if there exists proper coordination and cooperation between the various line departments and agencies involved. It has been noted clearly from the field observations that most of these agencies tend to act in isolation rather than in a cohesive manner. Although the base has been laid down for the integrated approach by some activities like holding pre-Kanna and Kanna meetings, DCLO and Project Committee meetings and District Agricultural Committee meetings etc., not enough has been achieved in integrating the resources of the different agencies to solve the farmer's problems.

The attitude of the farmers and their organisations at varying levels has been mostly critical of officials while the officials play the role of clearing their image by offering explanations. In fact the time has arrived for the authorities to recognise that the process of

institution building is necessarily an integrated one where achievement will greatly depend on improved inter-institutional relationships. However, the existing bureaucratic character in institutions may be a deterrent to institutional building.

4.3 National Level Policy Environment:

Management of irrigated agriculture at the local-level is directly influenced by national-level policy. The extent to which the new policy formulations could guide changes at the local level in the desired direction depends not only on the appropriateness of the policy formulated, but also on the process of implementation and the local responses.

The INMAS Programme represents a clear departure from old policies which were aimed at promoting farmer participation but did not envisage any significant change in the bureaucratic management style. INMAS, on the other hand, presupposes such a change in order to accommodate farmers in to irrigation management in a more comprehensive way. This is a significant change in view of the fact that the bureaucratic management systems have almost always resisted and marginalised grass-roots level farmer organisations.

As maintained before, actual performance of the INMAS Programme would depend on many factors ranging from national political will through actual implementation to local level responses. Since IMD is responsible for implementation of the programme, the role of the ID is somewhat ambiguous. The obvious emphasis of the latter on the hardware aspects of irrigation may compel them to adopt an indifferent attitude towards institutional change. Moreover, the conventional role and the identity of irrigation professionals can also be important factors preventing them from appreciating the significance of non engineering aspects of irrigation management. The tension that was still evident between the ID and the IMD in the latter part of 1989 suported this observation.

The process of implementation is as equally important as policy formulation. Implementation is a process involving the interaction between various levels. As far as the institution building programme is concerned, in spite of the positive action of early 1990 some implementational problems are still evident. One of them is the slowness on the part of the national centre to respond to local level issues. This is partly related to the lack of an effective monitoring and feed-back system. Many issues that the farmers in the five irrigation systems complain of have not been either properly understood or quickly sorted out. These issues relate to the functions of farmer organisations, rights and duties of farmer representatives, legal rights of farmer organisations, rules and regulations governing the activities of the FOO, etc.

The implementation of the institution building programme at the local level is not without problems. As discussed elsewhere in the report, the lack of co-ordination among the diverse agencies involved and the incapacity of the PM to effectively deal with such issues make implementation that much more difficult. Moreover, the perpetuation of old attitudes and behaviour patterns by both the officials and some farmers, tend to impede change. For example, institutional organisers who are expected to catalyse the process of institional change are still treated as officials at least by some farmers, thereby obtructing the performance of their expected functions. (It should however be noted that their presence and activities in the farming systems in Polonnaruwa have resulted in the enthusiasm that many farmers display today.) While there are significant differences among institutional organisers in terms of their capacity and performance, proper orientation, guidance and monitoring could bring about a considerable degree of uniformity. Apart from external control and inputs, institutional organisers may also learn from each other through systematic interaction, exchange and dialogue.

Farmer response to new policy initiatives seem to range from indifference to enthusiasm. While some have reservations about them, others treat them as new opportunities. The reason why many farmers have doubts about new policy initiatives is that their past experience has shown the futility and short-livedness of externally imposed programmes. Many local level institutions have come and gone. Others have been absorbed by state bureacracies. This experience tends to forewarn the farmers that new farmers' organisations may also meet with the same fate.

Farmers on the other hand cannot ignore policy changes. Firstly, even if they ignore them, they are going to be affected by them, directly or indirectly. Secondly, given the gravity of their day to day problems, they are compelled to take new policy changes seriously, at least for a short while.

As is evident, farmers in all the five systems in general, particularly those who experience serious water and other difficulties, have taken an interest in the new institutional building process, particularly the FC and DC level organisations. This shows that they have expectations from the new system. Their interest and enthusiasm may soon be either sustained or retarded depending on their actual experience with the new system. If they could see that the new system is a potential source of relief in dealing with their diverse problems, then they may get more and more involved, thereby setting in motion the process of mobilisation of local people and resources in order to attain a higher level of productivity and social harmony in the major irrigation projects.

4.4 Socio-economic Factors

The establishment of farmer organisations (FOs) and their participation in irrigation affairs presupposes a collective orientation on the part of the farmers. By the same token, non-emergence of farmer organisations or associations is linked to an environment which hinders collective action and cooperation among farmers.

The establishment of atomised peasant communities through the distribution of privatised small holdings of land among the original allottees reduced the need for co-operation among farmers. Subsequent social changes, exemplified by increasing differentiation, fragmentation of holdings and competition has aggravated the above situation further. Since what is bred under such circumstances are disputes, misunderstandings and conflicts, the relevance of the establishment of the catalytic process is all the more evident.

Can the highly individualized farmers be brought into a collective organisation? If the answer is in the negative, then nothing short of the abolition of individualism or the establishment of collective peasant communities can lead to the creation of collective organisations. However, if this is actually the case, such a radical departure from the present state of affairs appears to be too much to expect, at least in the immediate future. The question therefore, is what alternative actions are possible.

Empirical evidence suggests that farmers in general are willing to come together and work together as a collective group at various levels, so long as they are convinced that such actions can lead to beneficial results.

How can they be so convinced ? And what about beneficial results? The first question relates to a process and the second to their actual conditions and problems. Let us first focus attention on the second.

One looks for collective remedies when one finds individual efforts to deal with problems to be ineffective. As for the farmers, problems can range from those associated with irrigation to difficulties in securing inputs. Nevertheless, these problems do not confront all farmers equally as the latter are often differentially placed within a settlement.

As is well known, all farmers in major irrigation systems are concerned with water. Yet some are more concerned than the others, depending on the degree to which they are affected by water problems. These variations can be found not only within systems but also across systemic boundaries.

None of the irrigation systems that come under the purview of the present study is characterized by complete equity in water distribution. Yet, some are more equitable than others. For example, Kaudulla not only has more water problems than the others, but also ranks low in equity terms, particularly in view of the disparity between Stage I and Stage II.

As mentioned before, apart from the fact that the farmers in general operate their individual holdings as separate family farms, there are other factors that impinge on irrigation management and farmer organisations. Some of these are changing tenurial arrangements, fragmentation of lands and the violation of rules and regulations, at least by some farmers.

The above conditions have reinforced individualist tendencies among farmers thereby preventing the emergence and sustenance of collective organisations. Since most farmers attempt to optimize their personal gains, often at the expense of others, their behaviour tends to promote disharmony, disputes and conflicts within the farmer community. In the absence of an effective adjudicating system, such conditions favour the powerful and influential farmers.

Major irrigation systems in Sri Lanka are directly managed by system level bureaucracies under the guidance and supervision of regional and national authorities. The five systems under study are not exceptions to this rule.

Under a bureaucratic system of management, it is natural that water users become 'clients' dependent on the management. Such a contractual arrangement breeds dependency relationships between the management on the one hand and the water users on the other. Since water

users are virtually reduced to the level of individual clients, they tend to be alienated and marginalised within the irrigation system.

In the absence of user associations, this collective influence on the management is virtually non existent. Though the irrigation infrastucture constitutes an integral part of their means of production, farmers do not necessarily perceive it as such. This is evident from their attitudes and behaviour. They do not often have the same positive attitudes towards irrigation infrastructure as towards their own productive property. It is also a well known fact that many farmers neglect their obligations and duties relating to regular maintenance of irrigation canals.

The establishment of farmers' organisations at various levels within Irrigation Systems is an attempt to deal with the above state of affairs and bring about positive change. The main thrust of the INMAS programme and institutional development under ISMP seems to be the assumption that the **farmers should no longer be clients of a bureaucratic system.** They, in fact, should become partners in the management of irrigated agriculture, including irrigation management, so that the management system is based on "user-support".

The latter, of course, is easier said than done. This is because such a strategy is bound to face obstacles of diverse forms. Some of these obstacles are internal to the local setting, the rest emanating from the external environment. Since some of these internal factors and dynamics are discussed in detail elsewhere in this report, the focus here is largely on the external environment. So as far as the local environment is concerned the discussion here is in the form of background briefing.

Farmers in Major Irrigation Schemes do not constitute homogeneous co-operative communities. They not only operate on individual/family terms but, in fact often compete with one another for a share of scarce resources such as land and water. Since farming is modernised and commercialised, it involves the use of expensive inputs,

financial capital and wage labour. So those who have easy access to substantial land, water, finance and other inputs are in a better position than those who do not. Socio-economic inequalities in the major irrigation systems are by and large linked to this mal-distribution of production resources and unequal access to available opportunities.

The ensuring of social relations of production are of a competitive kind. They compete not only for land but also for irrigation water which is a public good.

Farmers have differential access to water within an irrigation system. This may be related to their geographical position within the system, for example Head/Middle/Tail end, socio-political influence, nature of irrigation infrastructure, political influence, or even seasonality. Those who have easy access to water to their fields do not feel the need to co-operate with the rest who are often convinced that some co-operative action is needed to rectify this anomalous situation. On the other hand no effective co-operative action is possible without the participation of virtually the whole farmer community because some of the problems are caused by the actions, or even inactions of some members of the community. Any attempt to establish viable farmer organisations, therefore should necessarily take this aspect into account. This appears to be the rationale behind the catalytic process which is discussed elsewhere in the report.

5. CATALYTIC PROCESS OF INSTITUTION BUILDING

5.1 Training and Education within Catalytic Process

In the ISM Project the development of Farmers' Organisations is an important component of the institution building process. Creating awareness, imparting knowledge and upgrading the skills of personnel involved in a programme is the key to the success of a programme of this nature. This knowledge and skill building process needs to take place at different levels according to the different groupings of the personnel involved. Furthermore, the techniques and methodologies used in such processes should be tailor-made to the particular target group.

It was found that Farmer Training under the ISM Project takes place at 3 different levels - i.e. (i) at **Grass Roots Level** - i.e. the farmers and FC representatives in a DCLO, (ii) at the **Middle Level** - i.e. committee members of several DCLOs in a particular scheme and (iii) at the **Higher Level** - i.e. groups of DCLO members from several schemes. The analysis revealed that a considerable amount of training activities has been carried out in Polonnaruwa, by 1989 whereas only a marginal training component is being implemented in RBE prior to 1990. This situation has now improved. The main reason for the difference may be due to the lack of an effective intitutional structure with key personnel such as IOs & IDOs in RBE.

The component of training of farmers at the grass-roots level is mainly confined at present to the FC representatives and farmers in a given DCLO area. Generally these programmes are also being attended by the DCLO chairman or other committee members. The main organiser of such training is the IO. The IO chooses a community centre or a school building which is convenient to the farmer community as the location for training. The resource personnel are generally the IDO, the Finance Assistant of the scheme and the IO of the specific area. The training programme is mainly directed towards "farmer orientation" and awareness with co-operation between and within community groups, and participatory management of

Irrigation Systems at DC level and below. Attendance is generally 15-20 participants. However, on several occasions it was found that the farmers have requested the organisers to reduce the duration of the programme. The reasons for this lack of a "felt need" on the part of farmers for a training programme of this nature and duration need to be spelled out.

At the scheme level, training programmes are being arranged for committee members and farmers of several (about 3) DCLOs. In these programmes participation is high, about 45 to 60. Although the main organisers of these training programmes are the IDO of the scheme and the IOs of the respective areas, the services of the officers of certain line - organisations as resource personnel are regularly utilised. Although this is a very healthy approach towards organising multi-sectorial training programmes where the different sectors are well represented, the present study did not notice any significant involvement of the officials of the ID (one of the most important institutions) in these training programmes.

Apart from class room sessions, the present programmes include a component of some Local Study Tours where DCLO members join. These tours are undoubtedly effective, but the question is whether the number of such tours is sufficient to make a significant impact.

In Polonnaruwa an Intensive Training Programme had been arranged and conducted to upgrade the knowledge, attitudes and skills of the representatives of DC Farmer Organisations on Distributary Canal Management. Since this programme is meant for a Selected group involving presidents, secretaries, treasurers and water managers of DCOs in all the 4 schemes in Polonnaruwa, the Project Manager acted as the co-ordinator of the training programme. The entire training programme covered 4 sessions, each session running for 5 days and serving a batch of about 40 trainees. The programmes were conducted in "Mahasen mandiraya" of Minneriya.

The programme covered a wide array of issues related to Land Settlement, Agriculture and Agrarian Services in general and to Water Management in particular. The group of resource personnel was quite strong, and were selected from among those having expert knowledge and experience in the related field. The training techniques revolved round Panel Discussions, Lectures, Film shows/Game simulations, observations and Recordings, Case studies etc. Unlike in the training programmes at the other two levels, the participation of officials in this programme was very high. This may be due to the fact that the programme was prepared by the training personnel of the ISMP consultants themselves with adequate planning as compared to the typical public administration approach adopted by state officials.

It was found that the original batch of graduate IOs recruited at the inception of the ISMP, were given a comprehensive residential training programme at the ARTI. Although the content of the training programme was not reviewed in detail within the present study, the interviews conducted among some graduate IOs indicated their satisfaction with the training programme.

However, the new batch of Advanced Level IOs who were recruited as IO Probations were given only 2 weeks of intensive training at the inception (March 1989). This training was organised and conducted by the Farmer Organistion Consultants of the ISMP, with the involment of IMD and ID staff of Polonnaruwa Range and the officials of the Departments of Agriculture and Agrarian Services as Resource Personnel. The Farmer Organisation consultant, IDOs & Project Managers and one Irrigation Engineer were in the key Training Team.

The composition of the programme in terms of the key areas is as follows:

	Time Devoted
Background information on INMAS, ISMP and IO Programme	5 hrs.
Role of IOs	12 1/2 hrs.
Community Development Activities	9 1/2 hrs.
Irrigation and Water Management	8 1/2 hrs.
Farmer Organisations	25 hrs.
Agricultural and Agrarian Matters	13 hrs.
Other Topics & Time allocated to Programme Review	12 1/2 hrs.
Games, Simulations & Field Visits	11 hrs.
Evaluation	4 hrs.
Seminar	6 hrs.

The structure of the existing training programme clearly indicates that much emphasis has been given to developing the knowledge of IOs in Farmer Organisations, Agricultural and Agrarian Matters, Role of IOs, Community Development Activities and Irrigation and Water Management. The content of the training programme in these areas is quite reasonable. However, no serious attempt had been made within this training programme to provide sufficient training in "developing the commitment and skills" of the IOs as **Change Agents** which is regarded as their main role. Perhaps the time-frame of 2 weeks did not permit any enlargement of the scope of training without further reduction of its depth.

Most of the Institutional Development Officers and Financial management/Monitoring, Evaluation and Feed back Assistants, are the graduate IOs originallyrecruited to the ISMP and subsequently promoted to the positions they now hold. Most of them have previously had comprehensive training, thus providng a reasonable base. However, facilities for re-training and further training activities to improve their efficiency and effectivenes do not exist.

The Project Managers are the key personnel on whom the success of the ISMP at the scheme level will depend. Almost all of the project managers have acquired sufficient knowledge and skills in administrative organisation and development at the project level. They also seem to have acquired sufficient understanding of the ISMP. Some of them obtained training abroad on topics relevant to the ISMP.

The Project Managers (PMs) also had the opportunity to participate in the ISMP project review workshop held in April 1989. They also took part in the workshop on Management of the Irrigation Management Division under the Institutional Strengthening of ID and IMD Project. These workshops proved excellent opportunities to improve their effectiveness. The PMs were not invited to the Workshop of the review of the Interim Report of the present study. However, the other key project officers were in attendance and have imparted the observations to the PMs and also have generated a wide range of corrective actions based on the discussions.

There are several different levels of involvement in the ISMP among the farmers and officials concerned.

a. The farmers (excluding FC representatives and DCLO office bearers). Since most of the original LDO allottees have now given their lands to two or three of their children who function as the water users and the operators of the land, it is likely that there are 40,000 to 60,000 farmers in this category.

b. The FC representatives (excluding the three principal office bearers of the DCLOs.) There are approximately 767 FC representatives in this category.

c. The three office bearers of the DCLO (including the DCLO representatives in the project Committee). There are approximately 183 people in this category.

d. The TA and WSS of the ID and the IOs, IDOs, FAs and MEFs of the ISMP.

e. The Project Managers and the IE, the GA, Addl GA, DEI, ACAS, ADA etc. There are not more than 15 odd officers in this category.

Training farmers in operation and maintenance activities and in developing farmer organisations is one of the goals of both the INMAS programme and the ISMP. For several reasons, it is questionable whether the approach to the development of the human resources of a farming community which is implied in the concept of "farmer training" is itself valid, for several reasons. It may perhaps not be unfair to comment that those who want to train the farming community are sure that they possess inert knowledge which they can input into the farming community so that the farming community in turn can output this knowledge in participating in the activities of farmer organisations.

An attempt to train the whole farming community in the knowledge required by FC representatives to function as water distributors and organisers of maintenance within the FC area, and to participate as committee members of the DCLO responsible for water distribution and organise the maintenance of the distributory canal system in the DCLO area, may not be of interest to the great majority of farmers who may not aspire to become FC representatives. This is perhaps the reason why attendance at the level of "farmer training" organised by ISMP is poor, and the farmers frequently request the organisers to cut short the training programme. There is obviously some degree of resistance on the part of the farmer community to the farmer training component of the ISMP. In general the awareness among farmers about the usefulness of training is exteamely poor. The recent attempts of 1990 in creating such awareness among farmers is encouraging.

It is observed that the entire training programme at all levels of ISMP is expected to be implemented by the Sociologist of the Sheladia Consultants and the higher level and middle officials of the departmental organisations concerned, in addition to their other duties. There are no separate full time training officers at any level to run the training programme.

5.2 Role of Change Agents

The experiences in the "Gal-Oya Farmer Organisations and water Management Project" which can be considered the God Father of ISMP, showed that effective development of farmer organisations can be animated and nurtured by a catalytic or a change Agent Process. Although the change agent component is present at varying intensities among different levels of personnel involved in the programme, the most effective change agent could be the Institutional Officer who interacts directly and closely with the farmers. Therefore in dealing with the evaluation of the effect of the Catalytic Process, the role of the IOs as change Agents requires special attention. The evaluation of the role of supervisors of IOO i.e. the IDOs, Project Managers and other IMD officials is also important.

The role of the IOs in the catalytic process in ISMP could be recognised in relation to the following functions:

i. As a **motivator** influencing a change of opinion, attitudes and behaviour of farmers
ii. As a **trainer** of farmers
iii. As a **facilitator** to develop farmer capacities and capabilities
iv. As a **reporter** to higher level officers

The analysis revealed that the graduate IOs especially have taken an active part in organising the farmers of one or two field canals into Field Canal Groups. The farmers come together in an ad-hoc basis to discuss and solve there problems to a satisfactory degree in the ISMP.

IOs programme has encountered the problem of high attrition rate from the very beginning and it has even led to misgivings among certain quarters about the usefulness of insisting on the deployment of IOs when the right person does not have an incentive to stay with the programmme. At the same time opportunities for all IOs to obtain permanent positions as IOs have also been rather remote and this has been the view which has gained acceptance. The development of a new cadre position called the Institutional Development Officer (IDO) provides prospects for promising IOs to obtain permanent appointment in the new cadre. Thus the new IDOs will work as Supervisors of IOs at the field level, and already the ISMP area has been posted with some of these personnel.

The manner in which the new appointments have been experimented within the ISMP leaves some questions unanswered. Firstly the hands-on experimentation on the establishment of FOs with the assistance provided by the catalyst should have been continued into the new project. Regrettably certain parts of the good work done in Gal Oya therefore fell by the way side. It seems that the ISMP to some extent has misinterpreted the necessary interaction between IOs and FC level groups, having forgotten that in the majority of the cases FC Level of Gal Oya is equivalent to DC level in the ISMP. Secondly the training given to the new IOs recruited from among A'Level qualified candidates appear to be extremely inadequate. It is observed that the inadequate follow up training for these new IOs has affected the quality of their performance. Thirdly the programme associated with the recruitment and deployment of IOs has not been properly monitored to ascertain the issues concerning the conceptual content of the programmes. Although the solution has been effected to retain the IOs in this posts by the recruitment of A Level candidates, who are less in demand for employment the extra-effort required to raise the standards of their performance has not received adequate attention.

Indeed an important issue which needs to be resolved is how to offer some career prospects in the sector for IOs. In view of the unique nature of training and experience obtained by the IOs at the field level it is necessary to publicise this fact and persuade line agencies working in the rural sector to recruit personnel from among IOs so that the experience will carry extra weight for gainful employment opportunities. At present no such arrangements exist even within the ranks of the same ministry under which this programme is being implemented. The IMD is expecting the IOs to play a vital role in the "human resources development" among the farming community without accepting its responsibility to provide carrier development and continuity of services of the IOs as an important human resource. It is extremely difficult to recognise how such an attitude can be expected to yield optimal results from the young IOs in the catalylic process.

Investigations have revealed that the role of the IOs has been misconstrued as the farmers and their representatives have not correctly understood the role of IOS. In some instances farmer representatives (FRR) have regarded the IOs as a "go-between" vis-a-vis farmers and ID staff. In fact at a recent Project Committee meeting there were serious discussions where certain FRR adopted the position, that they do not need IOs as they them selves can get things done from ID field staff while others criticised that IOs have been ineffective as "go-betweens".

The analysis revealed that many farmers and FRR feel that the IOs duties pertain to performance at the field level as a typical state bureaucrat, According to this view the IOs are there to orgnise "Shramadana" and to act as an agent of the Project Manager in order to maintain the bureaucratic structure and to play the role of a supervisor at meetings of farmer groups. On the other hand many farmers and FRs think that the IOs are state officials who are there merely to co-ordinate the inputs of line-departments and to solve farmers' problems.

All these different views have emerged due to the different functional activities of the IOO as a change agents. Undoubtedly the IOs will have to play a role of this mixed nature in order to carry out their catalytic task effectively. However, the fact remains that the farmers have not correctly understood the role of IOO and the ISMP based implementation programme has failed to create an awareness among farmers the the functions of the IOO.

This situation becomes more complicated as the IOs themselves over do certain functions in order to gain authority and importance in their functional environment. It was found that some IOs have emphasised, whenever water problems arise that the FRR should contact them directly instead of the ID staff in order to solve such difficulties. It would have been much better if the IOs can show ways of solving such problems rather than acting as an unnecessary "go-between". In fact if IOs can help solve problems, this would improve the relationship between IOs and the ID field staff. Similarly, many IOs have over done the role of 'doer' in shramadana' etc. as well as in the role of 'problem solvers' for farmers and the co-ordinator of inputs of line-departments, to such an extent that IOs themselves have forgotten that they were sent to the field as catalysts.

In many instances IOs have failed to recognise that they are catalysts who need to play the role of **"behind the scene"** facilitator and have even become de facto farmer leaders. One of the main aims of the farmer organisation concept in the irrigation systems is to develop **leadership qualities** among farmer groups even without using **"farmer leaders"** and the result in this sense has been the creation of a bureaucratic leader. It is worth mentioning that if IOs continue to assume farmer leadership, then the effects of the dependency syndrome will be prolonged and therefore, the intervention of IOs will be counter-productive to the very cause of institution building and farmer participation.

It was found that the confusion in regard to the role of the IO is prevalent not only among farmers and FRs, but even among the field officers of the line departments. Perhaps the more interesting point, is that the IOs themselves are confused about their own role. Field

observations show that although the IOs "say" they are catalysts they "act" more as a 'doer' "co-ordinator" and a "bureaucratic agent". It is surprising to note that even the Project Managers themselves make use of the IOs more as subordinates to operate and maintain bureaucratic structures rather than as 'change agents' to assist in building farmers' organisations.

It was found that the IMD administrative structure expects the IOs to carry out some administrative functions such as collecting information and submitting them for monitoring purposes. It is understandable that basic information is necessary to work effectively as change agents, but if this administrative work consumes too much of the IOs time, they would not be in a position to carry out their primary function. Another danger in undertaking too much of administrative work is that as the project matures, the Project Managers could possibly take advantage of the involvement of IOs in administrative matters, and in the end the IOs may be considered as an "assistant" to the Project Managers. Unfortunately, it is difficult to identify any vigorous activity in the field of 'on-the-job training', evaluation and discussions through which IOs can obtain a better understanding of their primary mission.

On the other hand, the image of the IOs in the minds of the farmers - as a "mediator" "facilitator" and a "instructor" tends to build up a picture quite different to that of a change agent. The study revealed that the IOO are presently emerging with an image of "an easy to approach officer without official powers". If such a distorted image is allowed to prevail in the minds of the farmers for too long, damage to the effectiveness of the entire catalytic process would be possible.

5.3 Monitoring, Evaluation and Feedback Related to Institution Building

Monitoring, evaluation and Feedback (MEF) of the activities of a programme are of primary importance to determine its impact and progress in terms of efficiency and effectiveness. Continuous monitoring and evaluation done at specific time intervals during the life span of the programme, would help to take any corrective measures necessary to ensure the intended results.

MEF is one of the 6 major components into which the activities of the ISM Project are divided. This particular section deals with a review of the MEF activities related to institutional development aspects. The ISMP has incorporated monitoring and evaluation activities into its project activities through several functions. The importance the ISMP has attached to MEF is clearly seen by the appointment/introduction of a Financial Management/Monitoring, Evaluation and Feedback Assistant to each of the Projects. The FM/MEFs through the IOs supply monthly information for monitoring and evaluation. This information is supplied on a format referred to as "Institutional officers Monthly Report. The report consists of three sections, namely General Information, Evaluation of Farmer Organisation Activities and Utilisation of Time by IOs.

The first section deals with some basic information about the particular IO and the identification data of the DCLOs for which details are provided. Information about two DCLOs can be entered in one reporting form.

In the second section, the IO is expected to evaluate some important activities of the identified DCLOs, in respect of the month under review. These activities cover, the performance of the Field Canal Groups under the DCLOs, the number of DCLO meetings held, the performance of DCLOs and the constraints faced by the DCLO.

In the third section, details of man-hour utilisation of the IO in 40 different activities are required. This is a very tedious exercise where the IOs are instructed to perfect the report forms making use of notes kept systematically in a diary.

The use of this kind of evaluation technique, utilising detailed reports has many advantages and also disadvantages. By requesting monthly reports about some specific activities, the reporters (in this case the IOs) are tied down to the "given" project activities, helping the IOs keep a close and continuous track of these activities. After some time, the IOs will be conditioned

to this reporting process and eventually it will become a routine task to give a timely feed-back to the PMs. Considering the limited man-power available for this feed-back in the light of the variety of the number of important activities taking place, proper adherence to this reporting systems may be difficult. On the other hand, as the process gathers momentum, the IOs cannot be tied to a rigid activity programme and some flexibility of activities is required. The monitoring of these newly adopted activities could not be undertaken if the reporting is confined to a set format.

It was also found that, requiring the IOs, whose main mission is to play the role of "change agents", to fill detailed evaluation forms monthly would distract them from their primary task. In fact, one may argue that this type of MEF work can strengthen bureaucracy rather than build the institutional vigour of farmer organisations.

The Study also revealed that although a programme of Pilot Areas is being implemented, the objectives of the Pilot Project Areas are not sufficiently clear to the implementation. Certain documents of ISMP describe the pilot programmes as an attempt to secure integration of project components confronted with a diversity of policies from many government line-agencies involved in the project area and to secure some control over the "project implementation process". In general the "Pilot Programme" is considered to be a "learning-by-implementing" process, where the specific activities of the programme can be tested in action, while taking corrective measures when necessary,. It seems that the Pilot Area Programme in the ISMP was not structured for this purpose.

At the very inception of the pilot project area programme, there were 5 pilot projects: 4 in Polonnaruwa in each scheme under ISMP and one in RBE. There were several important observations made in the pilot-areas, which were used subsequently in improving the programme in those areas. These observations should form an important part of the evaluation method and feed back to improve the overall programme. The pilot programmes in

the 4 DCLOs in Polonnaruwa District were started in 1988. Based on their experience, programmes for 22 implementation areas were started in 1989. In these 22 areas the approach was an outcome of lessons learnt such as the need for reorganising and selection of FC level groups and DCLOs using new constitutions for the latter; change from SP level committees with no general membership to DCLOs with an elected executive committees, etc.

The present study revealed that monitoring evaluation and feedback activities are not taking place with sufficient vigour. Statements are being prepared under the heading "Prioritised O & M Project and Source of Funds" where moneys available, expenditure and progress of work are listed in each pilot area. However in spite of all these listings, the progress monitoring of rehabilitation in pilot areas has not been very impressive. By observing the real world progress one may question whether the MEF component is being put into practice. If the answer is positive then it is questionable whether the out come of the monitoring and evaluation activities has been effectively used in improving the implementation programme of the rehabilitation work.

6. OBSERVATIONS ON RIDI-BENDI-ELA

6.1 Observations upto the end of 1989

This section deals with the observations on the Ridi Bendi Ela scheme upto the time of the Interim report was prepared in 1989. Owing to the significant changes that have taken place since then, further comments on recent developments are given in a separate sub-section.

The R.B.E. scheme is fed by an intermediate and wet zone catchment area and has an assured supply of water for a cropping intensity of about 165%. It has only seven Distributory Canals serving about 1,500 acres. The balance 4,500 acres are all directly fed by field canals or even pipe outlets directly supplied from the Main or Branch canals.

R.B.E. has a relatively high percentage of privately owned land. Government intervention in the early years has resulted in the acceptance of a stable rotation of the 33% land left uncultivated during the Yala season. A "pragmatic rehabilitation" of the distributory system appears to have been done during the early 1980's under the Kurunegala District Integrated Rural Development Programme.

In the Ridi Bendi Ela scheme, unavailability of an adequate amount of water during Yala has been prevented from creating significant generalized inequity by the emergence of a rotational system which, in effect denies water to a section of the settler community. Since all farmers are affected by the rotation system equally, inequity during a particular Yala season is treated as a form of equity by all.

What does the case of Ridi Bendi Ela denote ? It shows that collective solutions are acceptable to farmers, if adopted by consensus even when they involve certain individual losses in the spirit of distributive justice.

In recent years the RBE scheme has had fewer situations of water stress during the Yala seasons than three of the four Polonnaruwa schemes. Yet it should be noted that there was a partial crop failure during both the Maha 86/87 and Yala 87 seasons. The tail end tracts on the L.B. branch of the R.B. Main Canal (Tharangolla and Danduwewa SPC areas) and the RB Main Canal (Divullewa SPC area) have had severe water shortage problems in many Yala seasons. In the Yala 1989 season only 50% of the Thalangedera Yaya (310 acres) and the Galapitiyagama fields in the Divullewa SPC area were cultivated on the bethma system when they were entitled to a full cultivation, because they were not sure they would receive enough water throughout the season to cultivate the full extent.

These particulars are noteworthy because the impression given (by the "head enders" and their representatives such as the then Project Manager on his occasional visits to the scheme) that the absence of active and effective SPC does not matter, is false. The "tail end" farmers point out that even when they suffer severe water stress, there is ample water flowing in the Kuda Oya which drains the LB Branch and RB Main Canal areas. The Vel Vidanes who manage water issues in the D.C. and F.C. in the absence of F.C. farmer groups and SPC are effective in ensuring adequate water to the fields in their areas at the expense of the tail end tracts on the R.B main canal and the L.B. branch canals.

In the Ridi Bendi Ela scheme where 75% of the DC level farmer organisations consist of 5 - 25 pipe outlets and field canals which take off from the main and branch canals, the farmer organisations are to this day known as "Sub Project Committees" and not as "D-canal (level) farmer organisations" as they can not be related to the layout of the D-canals. In such cases the demarcation of the area of authority has in reality been done in relation to the socio-economic considerations which define one village community as an entity separated from its neighbors. This has been unavoidable in most cases. The break-down of the SPC areas is given in Annex 5.

Where a main or distributory canal is physically isolated from the rest of the scheme (e.g. the middle canal in the Ridi Bendi Ela Scheme which serves 247 acres) there would seem to be justification for a separate SPC for less than 500 acres.

The 54 Vel Vidanes who are themselves members of the 159 FCOO (on paper) liaise directly with the farmers in the areas served by them and "manage" water distribution. Even informal FCO groups do not meet in these areas.

It should be noted that in RBE the FC level informal groups do not really exist at all; when essential an FC level informal group may be called up for an ad-hoc discussion. The 38% of SPC which have elected or nominated the former Vel Vidane as the "SPC Chairmen" also function mostly as a rubber stamp for the traditional leader to take the major decisions regarding O & M in their areas. Meetings of all the farmers in a SPC like those which took place in the L.B.C. Middle C and Upper R.B.M.C. of the scheme prior to the Yala 1989 season are untypical of the scheme as a whole. These areas consist of about 800 + acres of Temple land with tenants under the Bandare system of land tenure. They are also relatively urbanised holdings in close proximity to Nikaweratiya town.

RBE had only 4 graduate IOs even at the peak of the programme. Under these circumstances the mobilisation of farmers in all the 10 SPC areas of the scheme was not practicable although this was programmed. Thus according to the information available, they concentrated only on a few selected SPC areas. This interest too was short lived since all of them vacated their posts one by one until finally the RBE was left without any IOs. In general, organised FC groups do not exist in RBE.

Since the last set of graduate I.OO resigned, the IMD has not appointed "A level" replacements. The Project Manager is more conspicuous by his absence from the scheme than by his presence in it. The physical layout of the scheme makes the patrol labourers in charge of the Main Canals the key figures in water management in 75% of the scheme, together with the 54 traditional Vel Vidanes

who manage water distribution in the D canals in the balance 25% of the scheme, and in the F.C in the entire scheme.

In the Ridi Bendi Ela Scheme the data gathered shows that meetings were held mainly in the head end of SPC areas in the Right Bank main canal, the middle canal and the upper section of the Ridi Bendi Ela canal before it bifurcated. These meetings were held mainly to organise the cultivation of other food crops purely in the Yala 1989 season. In the greater part of the Ridi Bendi Ela Scheme, the SPC did not meet in 1989 at all.

The absence of IOs left the Project Manager isolated in his office and unable to be effective to the same degree as his counterparts in the Polonnaruwa district. He may therefore have found his position literally untenable and taken the appropriate steps to reduce his personal risk.

It is possible that if the Project Manager had his full cadre of IOs, he could have organised as high a level of activity among SPC as in the four schemes in the Polonnaruwa district. On the other hand, whether he would have done so is a matter for speculation. However, the view that even if the Project Manager and his IOs were in station they could not have organised SPC level activity as in Polonnaruwa district owing to the security situation appears to be mistaken - a case of "post hoc, ergo propter hoc". The security situation in the RBE was not substantially different from that in Polonnaruwa district. It was the availability of the IOs and the availability and attitude of the Project Manager that were markedly different.

If the security situation improves, it will be necessary in the Ridi Bendi Ela scheme a) to reconstitute the SPC so that their farmer representatives perform the functions now performed only by the Vel Vidanes b) to appoint an adequate number of I.OO c) to have an active and committed Project Manager resident in the scheme. It is interesting to note that in the recent months the IMD has taken necessary steps in this regard. These steps should enable the SPC in RBE to come up to the same level of activity as the DCLO in the four Polonnaruwa district

schemes. To enable farmers to perform the functions expected of them it will be necessary (a) to motivate the Irrigation Department's field staff to support them in taking over the O & M of the secondary distribution system and in undertaking maintenance and rehabilitation contracts and (b) to give them legal recognition.

It was found that the situation of RBE is different to that of the 4 schemes in Polonnaruwa in terms of land ownership, climatic conditions and socio-economic conditions. In the RBE scheme, the Project Office was more often closed than open in 1989 where major part of the field work of this study was done. In this scheme the FOO to be established at all 3 levels have generally been inactive. At least in certain parts of this scheme, all matters pertaining to cultivation, water distribution and maintenance seem to have been apparently as well organised as in PSS, Minneriya and Giritale and perhaps even better organised than in Kaudulla. Based on the observations derived so far the conclusion would be that this is an outcome of the historical and situational differences rather than due to the strength of the FOO.

6.2 Developments Beyond 1989

The preceding section of this chapter commented on the situation in the Ridi Bendi Ela scheme at the time Interim Report was prepared in October, 1989. The then Project Manager rarely visited his project; there had been a long period with not a single IO, IDO or FA from the IMD in the scheme. A new Project Manager was transferred to the scheme on 15.11.1989; 7 I.OO were appointed in January 1990 and were given 2 weeks' initial training under the auspices of Sheladia in Hingurakgoda. An IDO and an F.A. have also been appointed. TEAMS can perhaps claim that this is truly a case of "post hoc ergo propter hoc".

At the time the study began in 1989 it appeared that the RBE scheme was as productive as (or more productive than) the 4 schemes in the Polonnaruwa District even though the ISMP programme was virtually dormant in it with only a visiting Project Manager and no IDO, FA and I.OO. Also

there was no programme for the rehabilitation of the irrigation distribution system funded by USAID in it. The question then arose as to what the "without project" and "with project" benefit would be in each of the 5 schemes.

One may observe that the RBE scheme has several intrinsic advantages over the 4 Polonnaruwa District schemes, such as:

i. its catchment area is in the intermediate zone and it has a more assured supply of water than the other schemes with the exception of the P.S.S.

ii. R.B.E. has a stable system of rotational cultivation whereby about 25% of the land is not cultivated each Yala.

iii. The irrigation distribution system is itself relatively uncomplicated.

iv. The maintenance of the irrigation distribution system by the ID had stabilised at a higher level in the RBE scheme. A major repair had been done to the gate in the inlet canal under the Kurunegala District Integrated Rural Development Programme (IRDP) a few years ago together with a few other repair works. However, the desilting of the inlet channel and some other major repairs are now needed in this scheme.

v. The RBE scheme has nearly 25% of private land and incorporates several villages with a well developed social and economic infrastructure. Input supplies and marketing are more effectively provided through long established private sector channels, whereas in the Polonnaruwa district they were originally provided mainly through state sponsored cooperatives. It is only since 1977 that the private sector was positively encouraged to make good the deficiencies in the state and state sponsored sector in the Polonnaruwa district.

On the other hand the RBE scheme was not without its O&M problems in the last few years which are set out in the

In terms of paddy monocropping and some cultivation of other field crops during the Yala season on the L.B. Main Canal and the Centre Canal, Ridi Bendi Ela was more or less as productive as the P.S.S., Giritale and Minneriya schemes. Upto 1989, it was more productive than the Kaudulla schemes while it was much less disciplined in managing water shortage upto 1989. All the schemes in Polonnaruwa district need a major rehabilitation of their irrigation distribution systems whereas the defects in RBE are of lesser magnitude.

It is intended here now to take a look at some of the "with project" benefits since the new Project Manager was appointed. A 1-day training class was held for the 19 Grama Sevekas, 2 TAA, 2 WSS, I.D.O. 3 A.II, 2 C.OO the GM MPCS and representatives of the Peoples Bank and the Development Bank. This has helped to develop shared perceptions of the value of INMAS. Of the 156 FCL areas nominally said to exist in 1989, 107 have have had fresh elections in Feb/March. In 2 DCLO areas where all the FC groups have selected their representatives in 1990, the office bearers of the DCLO have also been re-elected. Although many of the former VVs have been re-elected they now function only in their new FCL areas as F.C. farmer group representatives. The non-VVs elected to the balance FCL areas have taken over water distribution in their own areas. The water distributor for the DCLO covering the 247 acres under the middle canal is one of the non VVs who were elected, although the former VVs were also elected as FCL representatives in this DCLO.

The Project Manager has met groups of farmers and got them to define what they expected of their FCL representative and what qualities he should preferably have. He then requested them to come on another day with their selection by consensus. He feels that this technique has worked successfully and that a formal election as envisaged by Sheladia in the Polonnaruwa district is not necessary. One may conclude that the little extra work involved will be worthwhile when elections are next held (i.e. in 3 years time).

The Project Manager has initiated a 3 crop rotation in about 70 acres of land under the L.B. canal and the middle canal. A 60 day crop of green gram was sown after the Maha harvest in January. An evaluation of this crop is now being done. He feels that it was about 80% successful. He has now initiated a programme to

Tharangolla and Balagollegama DCLOs towards the tail end of the L. Branch of the R.B. main canal. He feels that about - 1000 acres may be sown with OFC this Yala. His long term goal is to evolve a cropping pattern and an efficient water distribution pattern which will enable 100% cropping in Yala season instead of 75%.

Perhaps the measures initiated by the new Project Manager R.B.E. may give some indication of the long term results achievable through the ISMP in the Polonnaruwa district. The 4 schemes there achieved paddy yields of over 90 bushels per acre as "Special Projects" in the Food Drive between 1965-1970. These yields fluctuated downwards in the 1970-1977 period owing to the neglect of the irrigation distribution system, the changes made by the government in farmer organisations (both the APC and the MPCS were dominated by political appointees), the decline in the input supply and produce marketing systems and the paddy monopoly. Since 1977 the input supply and produce marketing systems have revived under a free enterprise system but the revival of farmer organisations only began with the INMAS programme in 1984 and the rehabilitation of the irrigation system only began with the ISMP in 1988. Although rice yields have risen to over 100 bushels per acre the farmer organisations will continue to be pre-occupied to some extent for the next 2-3 years with the rehabilitation of the O&M system. They may be slower to diversify during this period into high-value OFC than the farmers of RBE.

The stabilization of the irrigation distribution systems and of farmer organisations (including the informal farmer groups at FC level and the joint Project Management Committees) may provide the spring board needed for the next leap forward on to a higher level of sustainable productivity in the major irrigation schemes.

This could include crop diversification and non-agricultural increases in productivity by other activities such as the processing of agricultural products and the diversification in to other industries based on local raw materials.

7. CONCLUSIONS

As a foundation for elaborating recommendations the overall conclusions of the study are presented in this Chapter. These conclusions encompass 3 broad areas, namely, (i) Functioning of Farmer Organisations, (ii) Functional Environment, and (iii) Catalytic Process of Institutional Building.

7.1 Functioning of Farmer Organisations

On the one hand, the irrigation tank, canal net-work and running water are public and collective goods serving a large number of farmers. Therefore, collective action of farmers through farmer organisations is necessary to ensure an adequate level of operation and maintenance of irrigation systems. On the other hand, the farmer organisations should be strong and viable enough to provide assurance to each of its members that the member can get a reasonable return on his investments in cash, kind and labour. His investment will be matched by other members in some acceptable proportion, and there will be no "free riders". At present there are "free riders" such as some mortgagors, lessors and tenants.

It is generally accepted that in all civilisations, individuals have a tendency to use official seats of power and position to enrich themselves, advance their friends and to some extent torment their enemies; in simple terms individuals use **"public positions"** to play **"private roles"**. The observations indicate that the functioning of some of the FOs in the ISMP is not an exception to this tendency. The recognition of this human error is fundamental in trying to improve the institution building process of irrigation systems.

In the context of irrigation schemes in Sri Lanka the **"farmer"** is generally assumed to be the **"water user"**. In the schemes under review the **"farmers"** have been free to decide who will be the members of their organisations at FC level. Since 15-30% of the lands are cultivated by persons other than the allottees or their heirs, some non-cultivating owners, mortgagors and lessees had been chosen as FC level representatives in the past. Where this has occurred it has retarded the growth of farmer

It was also found that the data on "number of farmers in an area" collected on different occasions by agencies is misleading since such data is based mostly on the legal owner who is the original allottee under the LDO. The study revealed that, except in Kaudulla scheme, most of the original holdings have already been divided into at least 2 blocks and they are being separately managed by the original owner's heirs even though the water is provided from a single pipe outlet. Also there are many encroachers who have subsequently had there encroachments regularised. Hence the actual number of farmers in an area is not adequately recorded.

It was found that the number of members registered under different DC level, FOs in the ISMP is not too far from the number of original allottees. (This was clearly found in the sample areas analysed in depth.) This implies that a large number of actual farmers who operate at present are not members of the FOs and hence the rule 1 man-1 vote is working mainly for the original allottees and not to many other "farmers".

The observations of this study support the view that farmer representatives should be selected by the elective process rather than by consensus even though consensus may be regarded as a high attainment to be aimed at. An awareness on these matters should be built up among farmers and it is best that the choice be left to farmers as to how they should select their representatives. Under the prevailing situation of institutional development, there should be a fixed term of office for farmer representatives.

In many cases the constitution of the farmer organisations, which need to be reconstructed have been redrafted with the help of IOs and PMs and then ratified by the committees. This is a very encouraging outcome.

In the 22 implementation areas where DC level FOs have been re-organised recently, the farmers have generally elected actual "water users" as their FC representatives. The ISMP via its "awareness programmes" has helped to bring about this positive change. There are many instances where the original method of selecting

election" using the secret ballot. This change has helped farmers to re-organise their FOs with representatives more suitable and seems to be more effective than the original method.

Under INMAS and ISMP there are three tiers of farmer organisations within the project which are being viewed by the agencies involved in irrigation management as follows:

a) Field Canal Organisations: a small number of farmers with a selected representative to the next level;

b) Distributary Canal Farmer Organisations: with a large number of farmer representatives selected from the FC level which were previously known as SPCs.

c) Project Committee: with representatives of farmers and officers working at the project level.

Although both INMAS and ISMP refer to Farmer Organisations at FC level, in reality what was expected to exist were informal "groups of farmers" who get together on an ad-hoc basis when necessary in connection with water distribution or other matters related to the cultivation of the land.

The current activities of "farmer organisations" at FC level in the four Polonnaruwa schemes may be summarised as follows:

i. At FC level in so far as the FOs are active, they have **ad-hoc discussions, express views and make complaints** mainly regarding:

   a. water issues from FC rotational problems
   b. maintenance of FC;
   c. conflict-resolution within the FC area on an informal basis; and
   d. needs of the farmers, the programmes of the governmental agencies pertaining to the agricultural production programme, as well as matters such as agricultural inputs, credit and marketing.

The FC level "organisations" also participate in water issues and shramadanas. In other words, the main thrust of these "farmer organisations" at present is to participate by expressing views and voluntary work rather than providing "user support" in joint-management of the relevant irrigation systems.

The detailed investigation concludes that what really exists at the FC level are informal groups of farmers who meet in an ad-hoc forum. Hence it is misleading to name these informal groups as Farmer Organizations. Undoubtedly the ISMP has been able to mobilise the farmers to form these informal groups in an encouraging form and the outcome so far is a worthwhile lesson for most of the other major irrigation schemes in Sri Lanka where the process of institution building is too elementary to compare with that of the ISMP. However, in spite of the rewarding efforts made by the ISMP the actual situation at the FC level is that: (i) in certain areas informal farmer groups did not exist at all, (ii) in others where there are groups only a minority of the members participated in meetings and activities and (iii) at the same time there are many areas where the informal groups did exist and the majority of the "registered" farmers participated actively. This implies that there is much scope and room for improvement in the process of institution building.

On the other hand, at the DC level what was expected by INMAS programme and what was adapted by the ISMP is to have farmer organisations which can bring together all the representatives of the respective FC organisations. The DC level organisations which were labelled originally as sub-project committees (SPCC) were expected to be a DC level common forum to discuss operational matters at that level and also to review issues relevant to project implementation activities so that the relevant suggestions can be sent up to the Project Committee (i.e. project level organisations). In these terms, many decision makers visualised FC level organisations as the building blocks from which the entire organisational development of the project could be extended and hence as the most important type of FOs out of the 3 tiers of organisations.

The analysis revealed that at DC level the "organisations" meet monthly mostly on a regular basis and **discuss and take action** on the following matters which are of great importance:

a. water issues from DC and rotational problems;

b. identification of maintenance and repair problems in DC;

c. conflict resolutions within the DC area on an informal basis;

d. providing a two-way communication link between farmers and the Project Committee reflecting farmer needs and discussing programmes of the governmental agencies pertaining to the agricultural production programme and matters such as agricultural inputs, credit, marketing, etc.

e. participation of the pre-kanna meeting while discussing the tentative agricultural production programme and cultivation calendar; followed by one or more subsequent meetings to discuss variations to these programmes due to decisions taken by meetings at project level etc;

f. in several but not all of the Implementation areas the DC level organisations have already undertaken, commenced or even completed contracts for repairs to structures in DCs and FCs.

g. likewise, they have taken over the operation and maintenance of the D canals in a few of these areas.

Although the on-going activities at DC level are interesting and worthwhile, it is important to recognise that these organisations are mainly committees of representatives or a forum for discussion and expression of views rather than a platform for joint management action with State Departments. Until the end of 1989 where the major part of the investigation of the present study was done, the reality of these organisations was as

described here. However, in early 1990 there has been a new self-generating trend with most of them aiming at assuming responsibility for "management orientation" instead of merely "expressing views".

As at March 1990 the FOs are accepted by the executives of the ID and other line-departments as the legitimate organisations to perform the abovementioned functions which have catalysed the action-oriented outlook of the FOs at DC level. However there is still some resistance to the functioning of FOs at the level of TAs and WSs from other middle level officials of the line departments. A change in the attitudes of these officials is a prerequisite for the purpose of improving the functional ability of FOs.

FC level informal groups and DC level FOs concern themselves primarily with the operation and maintenance (O&M) of the irrigation distribution system which is a component of the seasonal agricultural production programme. In view of the government decision that responsibility for O&M of the secondary and tertiary distribution systems should be devolved from the ID to FOs it would appear desirable that they should build up and stabilise their capabilities to manage O & M of the secondary and tertiary distribution systems as fast as possible while they make an explict attempt to venture out into other activities connected with the agricultural production programme.

The most viable functional responsibilities of FOs at DC level in the light of their existing strengths and weaknesses are given below. However if the aim of developing FOs is to ascertain user-support in joint-management of the irrigation system by agencies together with users, the FOs will require gradually to take over more responsibilities.

a. ensuring equity, reliability and adequacy of irrigation water supplies to their fields;
b. securing the right of participation through farmer organisations in matters relating to water allocation and distribution, maintenance and rehabilitation and project management;

c. developing farmer organisations which will be given the legal backing under guarding the rights of farmers;
d. providing an institutional framework for the expeditious resolution of conflicts;
e. enabling collective decision making on matters relating to inputs, marketing and the preparation of production plans;
f. implementing the collective decisions adopted by the project management committee and;
g. acting as a vehicle to develop social cohesiveness among farmers.

Initially the farmer organisations in the ISMP Projects were expected to give priority to matters directly related to the operation and maintenance of the irrigation distribution system during the on-going rehabilitation phase. They should be encouraged to continue to do so even after the on-going phase of the project is over.

The seasonal agricultural production programme of each irrigation scheme under purview is being prepared at the project level virtually by the Project Manager with the assistance of the members of the project committee. Although the same production programme is informally discussed by the DCLOs at the pre-kanna meeting the present method is more of a "top-down" approach and hence not very realistic. As far as the implementation of the productive programme is concerned, it is the farmers at the bottom who know whether the indicated targets are in line with the actual requirements. The analysis revealed that there is a need to make each DCLO responsible for preparing its own seasonal agricultural production programme so that these DCLO programmes could then become the "building blocks" of the project level productive programme using a "bottom-up" approach. In these terms it is encouraging to note that many DCLOs are showing interest in improving the input supplies and marketing facilities presently available to their membership. Furthermore, this interest is a prime example for the ISMP to recognise the growing strength of the DCLOs and their movement towards action orientation which is an encouraging feed-back in the light of the hard work of the implementing agencies.

Although there are signs that stronger FOs are emergin and that the farmer representatives are increasingl involved in water distribution activities, the attentio given to elaborate a realistic production plan and t implement it is fairly poor. In these terms, it i important to note that the development and implementatio of a production plan with farmer involvement is a important as water distribution.

The major part of the field investigation of the presen study was carried out in 1989 when the productive huma activities of all sectors in Sri Lanka were paralysed du to subversive and counter-subversive activities. Howeve the timing of the research work was fortunate as i provided an opportunity to observe the functioning of FO in an objective form at a time which was extremel difficult for innovative work of this nature. It wa found that despite threats and difficulties posed b subversive activities, the DCLOs in the 4 schemes o Polonnaruwa were active and demonstrated the desire t improve their institutional strength.

In the Polonnaruwa District each Project Committee chaired by the Project Managers (PMs) and includin officials of the relevant departments has representative of each DC Level FOs as members. One D level representative from each Project Committee ha been appointed (as the farmer representative of eac Project) to the District Agricultural Committee. This i a healthy development and worth encouraging further.

The lack of legal recognition of FOs is more keenly fel in the ISMP (except in the case of RBE) than in othe major irrigation schemes as the ISMP FOs are mor advanced and active than FOs elsewhere.

With the expansion and change of knowledge the design o major irrigation systems has been changing rapidly ove the past 5 decades. It is interesting to note that th design of DCs and FCs is not uniform. As a result ther are difficulties for FOs to function within hydrologica boundaries. The specific difficulties are:

a. As field canals serve areas varying from 5-125 acres and Distributary Canals serve areas varying from 10-2000 acres it is not possible to demarcate the areas of authority of farmer organisations or groups strictly according to the hydrological boundaries of individual field canals and individual distributory canals respectively.

b. Some field canal level farmer groups consist of the farmers of lands irrigated from two or more field canals. This is likely to occur where the adjoining field canals irrigate less than 25 acres each.

c. Distributary canal level organisations may consist of two or more Distributary Canal areas, a single Distributary Canal area, or part of a Distributary Canal area depending on the extent irrigated by the Distributary Canal or canals in question.

In the case of ISMP, the areas of DC level organisations were defined by taking combinations of parts or the whole of DC areas which yielded extents of 500-1000 acres per FOs even though there were exceptional large sized areas. The farmer community has made representation with a view to dividing these areas into 2. This implies that there is a functionally viable optimum size for the area of authority of a FO. This is an encouraging development. According to the old system VVs managed water issues to 150-250 acres and at present the FO with its Chairman/Secretary and a paid water distributor could serve 500-1000 acres by having farmer representatives to cover 60 acres in average. These observations indicate that the viable functional (economic) sizing of a DC level FO is 500-1000 depending on the strength of the FO. In order to build FOs which are action-oriented, they should be constituted in such a way that the physical area to be covered by a FO is more important than the number of farmer members belonging to it. Hence such considerations should be taken into account in determining the area to be covered by a DCLO and a FC level farmer group.

The regular sessions of the PCs also discuss other important things such as: the O&M programme, rehabilitation programme and problems encountered by DCLOs. Specially these meetings provide a useful forum for the FRs to interchange views with IE when technical problems cannot be sorted out by the DCLO with a TA.

It is a positive development to observe that the Project Committees (PCs) in the Polonnaruwa District are joint-groups between DCLO representatives of farmers and the officials, where the farmer representatives are able to express their views without reservations. The nature of work of PCs is characterised by a series of meetings of which the "pre-kanna" meeting is the most crucial one as it is the starting point of the process of dialogue for the on-coming cultivation season.

It was found that in general, those who work in the irrigation sector referred to all 3 tiers of farmer involvement in irrigation systems management or "farmer organisations". However the study revealed that only one of them, the DCLO can emerge as a farmer organisation in terms of the real meaning of the word. The other two levels consist of an informal "farmer group" and a "joint farmers-officers committee". Undoubtedly this committee can be developed until it becomes a joint farmers-officers organisation.

It was observed that a farmer representative (FR) from each irrigation scheme in Polonnaruwa under ISM Project is being selected to the District Agricultural Committee (DAC), which is a positive development. Although the DAC meetings are being well attended by a wide array of representatives from different agencies including the MPs, the FRs are being a forceful voice in the DAC meeting as observed by TEAMS. This is an indication of the positive developments initiated by the ISMP.

One of the main conclusions emerging from the study is an assessment of the actual functional status of the 3 tier farmer "organisations" which are in operation in the ISMP. Since these organisations are being established in major irrigation systems in general, the observations in

this regard have a general use and are hence worth analysing a little further. The conclusions arrived at so far indicate that (a) the farmer "organisations" at the FC level are **informal groups** which meet and discuss certain "user-oriented" topics in an ad-hoc form while participating in voluntary work from time to time; (b) the DC level farmer organisations were found to be formal committees of farmer representatives which meet regularly and discuss user-oriented topics in a more formal sense while participating in certain formal activities with a set of functional norms; and (c) the Project Committees are a set of formal joint-groups of representatives from both farmers and state agencies which productively discuss and decide on issues related to water management and other cultivation requirements of the "user". An attempt is made here to arrive at further conclusions on the functional status of these 3 types of "organisations".

The term **"organisation"** implies in its most rudimentary form a **"state of being organised"**. Therefore, in the most elementary terms an "organisation" should be able to demonstrate that it consists of "parts" acting in coordination - having the nature of a unified whole. The basic meaning of "organisation" hence implies; (a) a goal-oriented behaviour, (b) the use of knowledge and techniques in the accomplishment of its tasks, (c) structuring and integrating activities to be undertaken (people working/cooperating together in interdependent relationships). Hence the basic characteristics of an "organisation" are: (i) goal-oriented (people with purpose), (ii) Psycho-social system, (iii) technological system - i.e. people using knowledge and techniques and (iv) an integration of structured activities - i.e. people working together.

It is accepted that from a "management perspective" a functionally viable organisations should demonstrate the following basic characteristics:

(a) an on-going purpose or mission or objective
(b) a measure of performance
(c) contains a decision-taking process with decision-makers

(d) components which are themselves organised
(e) a degree of explicit connectivity between organised sub-components
(f) should exist in a wider organisational environment with which it interacts
(g) possesses both physical and abstract resources required for functioning
(h) should have some guarantee of continuity and stability

In terms of this schemata of basic characteristics of organisations, it is difficult to recognise that FC level farmer "organisations" are in reality organisations. Based on a review of the functional reality of DC level FOs as at the end of this study, one may question whether even these organisations are functionally viable organisations, although these entities can be strengthened in order to become such organisations. The argument related to DCLOs is applicable to the project Committees too. Perhaps from the interest of the present study what is more useful to say is that these entities are not exhibiting a sufficient degree of organisation rather than arguing whether they are organisations.

The important point is not semantics but to visualise the gap between the existing "farmer organisations" and the basic characteristic of an organisation in order to find ways and means of improving the FOs. Further points in this direction are being concluded in another section of this chapter.

7.2 Functional Environment

The consultants involved in the implementation work of the ISMP feel that as the existing PCs are being chaired by the Project Managers and that the other agency officials are playing a key role in it, there is a need for a parallel Project Level farmer organisation with office bearers selected from DCLO representatives. This mode of thinking implies that the PC should handle administration and coordination while the proposed project level FO should deal with representations of political authorities, lobbying, agricultural inputs, etc. while serving as an apex body to strengthen the

DCLOs: The present study revealed that the formations of such parallel bodies is counter-productive and can lead to friction between officials and farmer representatives. As at present, there are no alternatives to a joint committee of FRs and officials. The proposed parallel organisations at project level can politicise the institution building process and propagate "dis-jointed management" at a time where joint-management is being solicited.

It is not surprising to see different people encouraging the formation of different "organisations" for different purposes under the special conditions of financial and human resources of the ISMP. The present study clearly indicates that, what is more important is to strengthen the 3 levels of existing "organisations", consolidate their functional ability with an action-orientation while guaranteeing the continuity and stability for joint-management. It is worth highlighting that some farmer representatives raised the question with TEAMS whether even the DCLOs will be "left aside" if not dissolved after a few years by the government just like the cultivation committees of the past.

The traditional Vel Vidanes (VVs) generally saw to water distribution in an area of about 200-250 acres. This was virtually a full time job and the Vel Vidanes generally used tenant farmers or agricultural labour to cultivate their own fields. Although the DCLO Chairman now has the assistance of a large number of F.C. level representatives, he now has to liaise between them and the I.D. staff in respect of an area varying from 250 to 2000 acres. There is a felt need for a full time paid "water distributor", covering about 500 - 1000 acres each in order to make the new system action-oriented.

The conflicts with the Vel Vidane of the Agrarian Services Department, who still has legal recognition and is the only person empowered to act in matters such as cattle trespass, are other inhibiting factors. The Cultivation Officers have in effect ceased to operate and Agrarian Services Committees have not been able to collect the acreage tax of Rs.6/- per acre. However, they too have legal recognition and powers. The existence of these officials complicates the role, status and functions of FC level representatives.

The main objective of the institution building exercise of the ISMP is to bring together the farmers in an organised form so that the farmers can take part in joint-management of their irrigation scheme with state officials. This task requires a strong political will and smoothening of bureaucratic barriers. Specially the way in which the ID and IMD staff act makes these bureaucratic and professional conflicts quite apparent to the farmer community which is trying to become a partner in a joint-management system. The success of institution building greatly depends on the ability to bring the efforts of the ID and IMD together. If this is not achieved it will not be possible to bring farmers to a platform for joint-management.

At the initial stage of the study it was observed that there were continuous conflicts between the ID staff, Kachcheri Staff, Project Manager's Staff and Farmer Organisations, which retarded the efforts of institution building. However, in the recent months improvements in inter-institutional linkages are emerging, quite apparently a very encouraging situation. Yet there are many middle level officials of the line departments carrying out many activities with a mentality of "promoting the department" without much concern towards contributing to the integral development of the project areas. In this regard, it is essential to recognise that the ISMP cannot achieve its objectives without effective contributions from the wide array of line-departments. The efforts of the officials of these departments should be moulded together for the achievement of the overall objectives of ISMP by enhancing their awareness and participation. These institutional development dimensions are still at a stage of infancy in-spite of the efforts made.

The analysis revealed that the institution building process related to ISM Project has shown encouraging results in the direction of **institutionalising the efforts of farmers** via development of farmer organisations. But unfortunately the attempts made towards **"humanising"** (being people oriented) **state dominated bureaucratic institutions by encouraging them**

to work jointly with users are inadequate. It is quintessential to recognise that, since the purpose of institution building is for joint-management between the farmers and the state, the reality of achieving this goal greatly depends on both institutionalising farmers via farmers' organisations and "humanising" the existing bureaucratic institutions.

Until recently irrigation systems management was undertaken by the bureaucratic system of state agencies which considered water users as clients dependent on the management. The main contribution of ISMP in its institutional development programme is to put into practice the concept that the farmers should no longer be clients of a bureaucratic system. In order to achieve desirable results in this direction the officials of the existing institutions need to change their attitude by considering that there are no "officials and clients" any more but they are 2 stratas of the same schemata of joint-management. This implies humanising the existing bureaucratic institutions.

In the four Polonnaruwa Projects, the IMD is represented at the highest level by its Project Managers. Administrative matters (only) are attended to by the Additional GA (Lands). Owing to the conditions which prevailed in the past, visits of IMD Head Office Staff were infrequent. It is not possible to give direction to the INMAS programme in the ISMP project from the IMD Head Office in Colombo. There is a clearly visible imbalance in the field between the I.D. represented by the D.D.I. Polonnaruwa, the Kachcheri represented by the GA, the A.D.A., D.A AND CAS represented by their District Asst. Directors on the one hand and the IMD represented by its Project Managers on the other. The lack of representation of IMD at district level, especially in a district like Polonnaruwa, is well seen as a vacuum from the point of view of institution building. The emerging view that the GA of the district needs to be appointed as the Additional Director of IMD is an encouraging development.

Although the D.I. and the D.I.M.D. desire the FOs to take over the maintenance of FCs and DCs, the feelings among the state officials in the field are quite different. Views expressed by different officials are that:

a. they should not undertake the construction or repair of structures even on F.CC
b. they should undertake them only in F.CC
c. they should not take over either the operation or the maintenance of DC until they have been duly handed over after completing all the formalities laid down in the D.I.'s Circular of January 1989
d. they should take over the operation and maintenance of the smaller D.CC and all F.CC only
e. they should take over the operation and maintenance of all D.CC and F.CC in the 22 implementation areas only and
f. they should take over the O & M of all D.CC and F.CC

The irrigation schemes under the ISMP are in an advantageous position presently as they have generated a reasonable thrust in the direction of institution building. However the inter-institutional conflicts not only retard the process but act as a force moving in the opposite direction. The observations indicate that in addition to creating an awareness among farmers there is a need to improve awareness among officials about the process of institution building under ISMP.

If clear and unequivocal guidelines and instructions are not jointly issued by the I.D. and the IMD, it is likely that the Government's policy decision will not be fully implemented. In view of the differences in view point and emphasis of the two Organisations, no joint instructions were issued and implemented until in very recent times. On the verge of making conclusions of this study it is interesting to note the positive developments which are taking place in this direction at least at the top level.

The field observations suggest that some ID officials do not share the same perception of joint-management as projected by the IMD. Undoubtedly this is a negative element for institution building. It is encouraging to

observe that policy making in respect of participatory or joint-management has taken a step forward by deciding to hand over the O&M work of DCs to the farmer organisations. But the possibility of creating desirable results depends on the support of the ID personnel to strengthen an effective management orientation among DCLOs. The ability of the officials of state agencies to share certain responsibilities with FOs while handing over of certain other responsibilities should become the "rule of the game" with immediate effect.

It was found that some FOs encountered several constraints in trying to execute certain maintenance work given to them by the ID as the estimate prepared by the ID for these works were found to be unrealistic. Some FRs expressed that there were deliberate delays, bureaucratic red tape and the reluctance of the ID field staff to give proper instructions which delayed progress. Although there are complaints and criticisms of this nature, the investigators of the present study found many instances where the ID officials are being highly praised by the farmers and their representatives. Hence the criticism should be taken as a productive feed-back.

At the beginning of 1990 it was found that there are positive changes of attitude among the officials of the ID-specially at the levels of DDI and IEs, accepting the policy changes and of the role of FOs in operation and maintenance activities. However, yet there is no sufficient attitudinal change among the cadre of TAs and WSs in the direction of the policy changes.

7.3 Catalytic Process of Institution Building

Considering the high turnover of IOs, it is a creditable achievement of the ISMP to be able to field as many IOs as they do now, in the four Polonnaruwa district schemes.

As indicated elsewhere the past performance of the FOs indicates that some farmer representatives have used their "public positions" to play "private roles". In these terms the main aim of the catalytic process of an institution building programme such as ISMP should be the harnessing of "private persons" (individual farmers) to

There is a tendency for the IOs to act as "doers", "farmer leaders" and "bureaucratic agents" even though their primary role is to assist farmer organisations and farmer groups as catalysts to establish themselves and to increase the effectiveness in the performance of their functions.

Catalysis in this context is a two-way process which can generate desirable results to mobilise farmers in an organised form only if both the "catalyst" and the "catalysed" understand the process and their roles within it. Sharing of information and experience at different levels by the "catalyst" and the "catalysed" ranging from F.C. level to P.C. level is a vital element of this process in order to generate viable action. One of the key functions of the "catalyst" is to initiate and catalyse this information and experience sharing activity. The trainers and supervisors of the catalysts need to recognise this important task.

The study concludes that already there are signs that indicate that the involvement of catalysts in the mobilisation of farmers can create a new dependency among farmers. This can be prevented only if the same process generates self-reliance. At present, sufficient measures are not taken to improve self-reliance among farmers. The development of this dimension needs to be seen as a priority area of institution development at this stage.

It was observed that the IOs function in the four Polonnaruwa District projects in an array of roles such as:

(a) primarily, as assistants to the Project Manager in executing his programme of work, and data collection from farmer groups and organisations;

(b) secondly, as the co-ordinator of the services provided by governmental officers and agencies; and

(c) lastly, as assistants or aides to farmer groups an organisations. This is one of the reasons why man farmers perceive them to be officials (niladharis without adequate powers to be effective. On th other hand, where they are effective in solving th farmers' problems, they tend to be accepted a officials. It creates the new dependency amon farmer groups and organisations as mentioned before.

The role of IOs is to activate changes in knowledge skills and attitudes of the farmers. Hence the IO shoul be capable enough:

- to act as a communication bridge between th implementing agency (ISMP) and the farmers;
- to create a need for change ie. weaker to a stronge organisation;
- to develop rapport with the farmers;
- to change positively the existing FOs (ie. reorganis the FO);
- to diagnose the farmers' problems (mainly irrigation and motivate them to implement necessary changes an action through themselves (ie. help them to hel themselves);
- to stabilise the changes and prevent discontinuity;
- to generate awareness and develop self-reliance amon farmers in order to activate joint-management.

The ISMP recruited two types of IOs
a) Graduate I.Os - very few remaining; and
b) I.O. Probationary (IOP) - (A' Level) - (about 70)

The positive impact of probationary IOs as catalysts o FOs is difficult to recognise so far. In objective term their work could be visualised more as assistants t Project Managers in execution, monitoring and evaluatio of some activities of the ISMP. The situation become more complex as there is a widespread feeling amon farmers that the IOs are "officials without authority" rather than catalysts. Unfortunately some of thes probationary IOs themselves tend to act and behave t confirm this view.

The analysis revealed that if the new recruits (IOPs) can be activated as catalysts via on the job training, then they will have many advantages over any other recruit, as they are:

- from the same farming community;
- having some idea about farming and farmer problems;
- willing to work in the field;
- willing to learn new things; and
- willing to respect and help their elders (ie farmers).

However, in trying to understand their strengths and weaknesses the following points must be considered:

- are they too young and immature to be accepted by the elderly farmers as their change agents?
- do they have enough training, experience and background knowledge on commercialized agriculture to win the confidence of the farmers?
- do they know what to do and?

The observations made in this study suggest that the involvement of a "change agent" like an Institutional Organiser (IO) is extremely important in order to develop farmer organisations under prevailing conditions. However, the practical impact of this task depends heavily on the effectiveness of individual IOs, rather than the number of IOs in the field. The effectiveness of IOs is dependent on their background, preparation, motivation and commitment. Some of these characteristics can be developed while in service, through on-the-job training programmes and other career development activities. However, one's ability to adjust to the demands of the sensitive socio-economic environment of the farming community is one of the most important individual characteristics of an IO which may be difficult to develop via training, etc.

In the Gal Oya Scheme Rehabilitation Project and in the INMAS Programme which commenced in 1984 it was envisaged that the Institutional Organisers should be graduates. During the period 1981-1987 there were a large number of unemployed graduates who applied for these posts on 1-3 year contracts. The available data show that the turnover of the IOs recruited on this basis was high from the inception till 1988.

However, the ISM project could not attract graduates thereafter due to the closure of universities during the period. Thus the question - who should be recruited as the IO - became a major issue. Under the circumstances the choice was "the Advanced Level qualified young men and women" from the locality of the selected schemes. The present study reveals that it is time to evaluate whether this choice was appropriate and if not to suggest some meaningful alternatives.

The field investigations found that in trying to make use of IOs, the IMD has looked at the problem only from an "employer" point of view and has failed to provide for the aspirations of the "employees" in terms of career development and continuity. In order to improve employer-employee relationship and to develop a policy for employing IOs for the future, it is necessary to identify:

a. what is the optimum qualification at recruitment level for IOs (bearing in mind the skill levels expected from them and the remuneration package they will get),

b. what is the level of remuneration they should get,

c. what is the period of service for which they should be recruited, and

d. what should be their career development prospects.

It would appear that both ARTI in the Gal Oya Project and the IMD have answered these questions on the basis of:

a. the surplus of unemployed graduates from 1981-1987 and

b. the surplus of unemployed A Level qualified persons in 1988 - 1989. It has already been demonstrated that "a" above was a temporary phenomenon, and it may well be that "b" above will also become a temporary phenomenon if more permanent employment opportunities can emerge with the establishment of peace and development projects.

"Farmer training" in O & M and FOs is one of the goals of INMAS and ISMP. At present farmer training is aimed at:

(i) Farmers and FC representatives in a DCLO;
(ii) Committee members of several DCLOs in a scheme; and
(iii) Groups of DCLO members from several schemes.

How far it is possible to reach the entire farmer population in a series of major irrigation schemes by formal training is open to question. These training programmes are aimed at improving farmer orientation and awareness. The analysis revealed that the attendance is poor and that those who attend too wish to leave early by requesting to cut short the programme. This implies that there is often a resistance to attempts to "input" knowledge and motivation into farmers so that they can "output" institutional strength when necessary.

7.4 The Role of the User in Irrigation System Management

One of the main components of the catalytic process at the agency level is to provide policy guidelines including useful conceptual thoughts so that the FOs can be developed within the institution building process. Hence in order to finalise the section on conclusions, the basic concepts which are being employed for institutional development are worth reviewing.

At present national level irrigation systems management is based on the concept of encouraging joint-management between the state agencies and the water users (farmers). These policy measures were explicitly announced by the State recently and necessary steps are being taken in order to implement them. This action was taken as the State realised that irrigation systems are managed by the State Agencies and that the time has come to change the emphasis to joint-management. These changes in national thinking are based on and applicable to all major irrigation systems including those of the ISMP. Although the reality of thought and action are in these terms, if one looks deep into the concepts which were used in Gal Oya, and followed on in ISMP for creating action for institution building, it seems different and confusing. Perhaps more confusing are some of the intellectual writings which have a bearing on these concepts.

Certain key thinkers who were closely involved in the institution building process of Gal Oya seem to have believed and acted on the basis that 'there are no irrigation systems which are entirely agency-managed except in hypothetical terms'. The argument of this school of thought is, that the technical personnel of an agency can manage the higher levels of system operation but rarely do they have the facilities, manpower and information to control and distribute water down to farmers' fields. Therefore, this school of thought believes that some user role in water management is found in virtually all systems and that there are no agencies which bear all water management responsibilities by themselves and hence irrigation systems are somewhat jointly managed (see for example: Chambers, 1977 and Uphoff 1987). This view explicitly implies: " even if an agency is responsible for operation and maintenance at higher levels of a system, users usually carry out some responsibilities in the lower reaches of systems management.

This view presumes that all irrigation systems are jointly-managed to some degree where the users are sharing some responsibility and hence the purpose of institution building is to increase the "share of responsibilities" and the effectiveness of the existing joint-management. In fact it further assumes modernization and rehabilitation as opportunities to introduce an increase in joint-management efforts which are already in existence. This thought also takes for granted that "farmer participation" represents an important part of irrigation management, indicating that the mere participation of farmers in irrigation matters implies joint-management.

Based on the field situation, the present study concludes that in the case of major irrigation systems of Sri Lanka in general and particularly in the case of the ISMP irrigation systems there are no signs that in reality joint-management is a prevailing characteristic which one can take for granted as the above school of thought believes. In fact, the reality is whether there is a reasonable degree of joint-management even in the 4 ISMP Projects in the Polonnaruwa district after all the hard

work of institution building of the ISMP and the recent policy emphasis at the national level. However, in a number of interviews and in-depth discussions held as part of the present study it was noted that some actors who were involved in Gal-Oya, INMAS and ISMP were acting in the belief of the above school of thought which presumes the existance of joint-management in any irrigation system. Therefore, these concepts are worth analysing further.

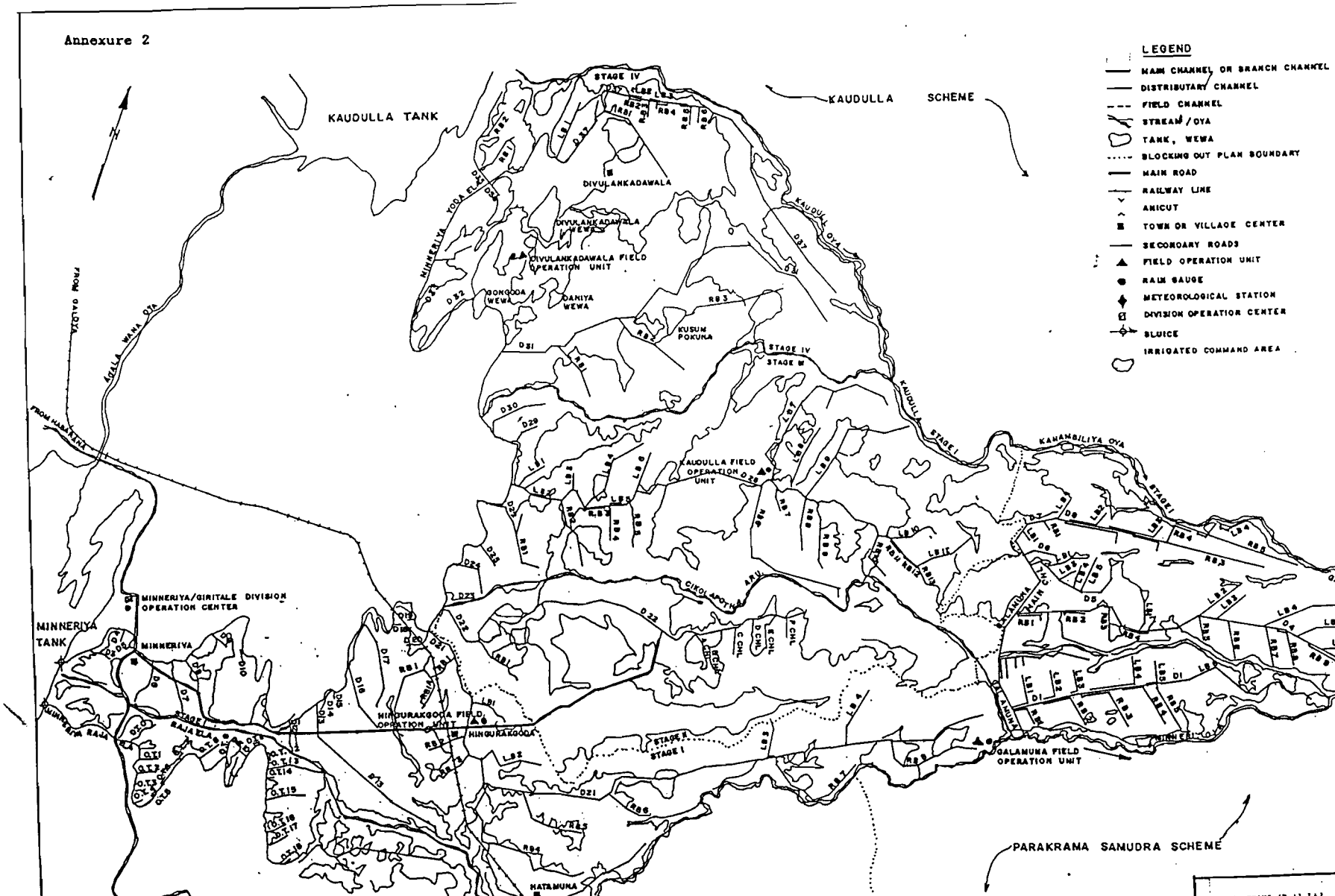
In trying to make an objective review of this thought, one may observe that any user-oriented product or service system requires the user to play a role as a result of being its user, even though it does not imply that the system is jointly managed. The provision of irrigation water is very much a user-oriented service where the user needs to play a role even if it is not jointly managed. Effectively, the answers to the question such as what amount of water, when and where it is required cannot be answered by the management system alone as they are user-oriented questions. They can be best answered by the users or from the information provided by the users involving a user-role. However this does not imply in any meaningful form that such a system is necessarily jointly managed. In fact in most of the Services/Products which are user-oriented, the role played by the user in this general sense is a role of "feed-back" for service facilitation - i.e. information for the system to manage and not necessarily a function of joint-management. The user of electricity supplied by the Ceylon Electricity Board who may have got the internal wiring and electricity outlets fitted to his own satisfaction and notified the Ceylon Electricity Board of the power supply he needs, does not "jointly manage" the electricity distribution system with the C.E.B. (In fact a user who goes to a tailor who serves the customer's orders plays a role somewhat similar to that of a normal water-user of an irrigation scheme. This does not mean that the "tailor and the customer" jointly manage the "tailoring service").

In any user-oriented product or service system the user "plays a role" within it even though this does not imply joint management. In fact even in product based marketing systems the user (consumer) plays a role in some form or the other in order to get what he requires and to change the "product" itself in the long term. As a result of this "user-role" the present day market systems strongly believe that there are no "products" until there is a "user" for what is being produced.

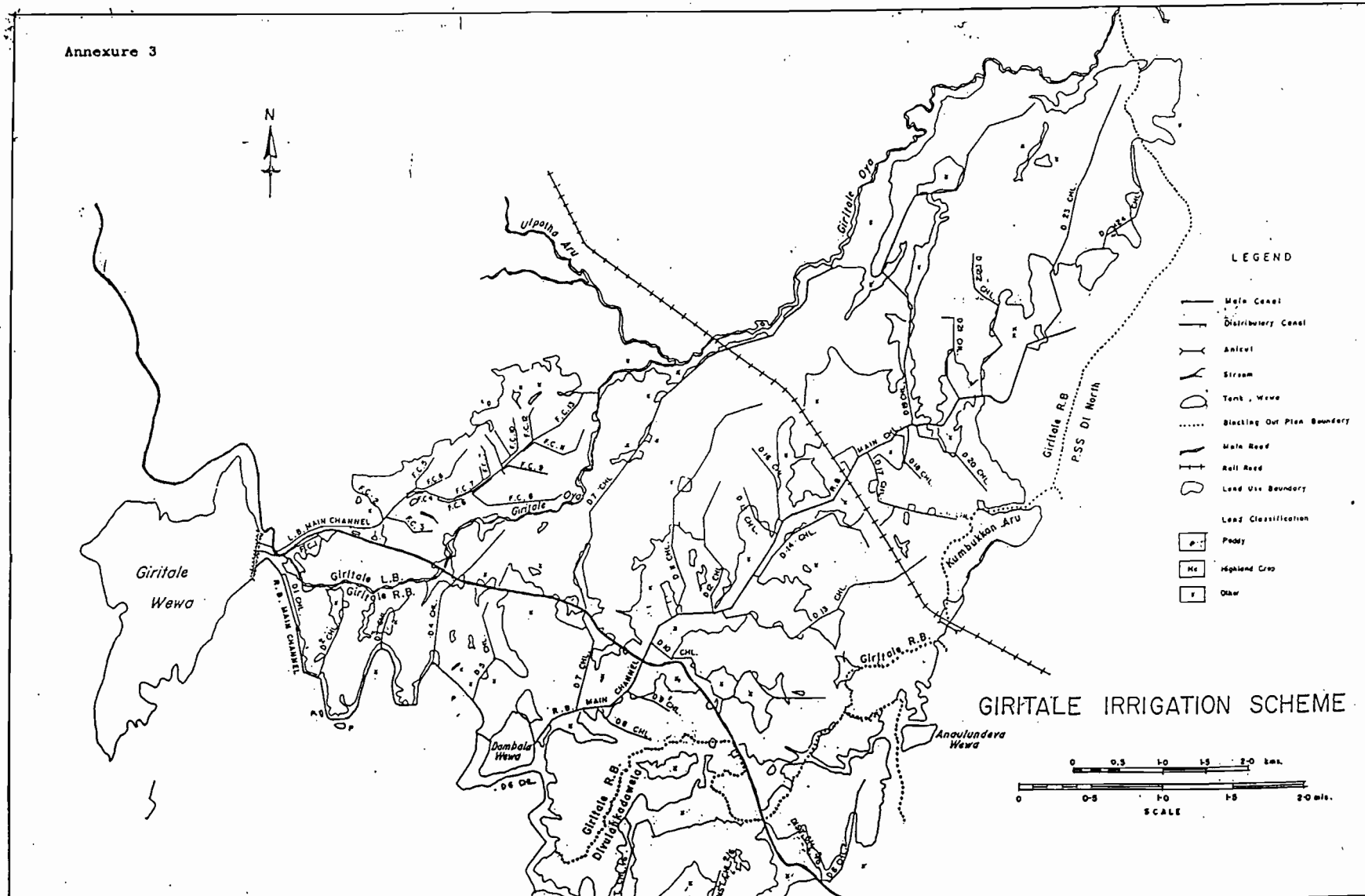
The analysis of real-world product/service systems indicates that these systems are characterised by a **varying degree of "user-orientation"** which can be **considered as a spectrum**. At one end of the spectrum one may find the degree of "user-orientation" is minimum and limited only to some form of **"user-communication"** which plays an important but limited role of communication and feed-back for the management system to provide the product/ service and to improve the provision continuously. In such user-oriented situations the users do not participate in management and can be named as **"user-communicated"** systems. For this situation to occur the **"users are being contacted"** by the system as a minimum necessary condition.

There are other "user-oriented" product/service systems in the spectrum which are characterised by more complex "user-role" compared to the extreme type specified before. In such systems the "user-role" is not limited merely to "user communication" but there is a visible **"user-participation"** in order to ascertain the delivery of the product/ service. One may call these systems **"user-participated"** and this type of user-orientation is not necessarily exhibiting a degree of organisation for "joint-management". However, one could recognise that in order to ascertain "user-participation" **"users are being mobilised"** by the system which is a more complex process than merely being "contacted". Here the "user" can play an active role by representing views and participating in voluntary activities which can facilitate the provision of the product/service.

Annexure 2

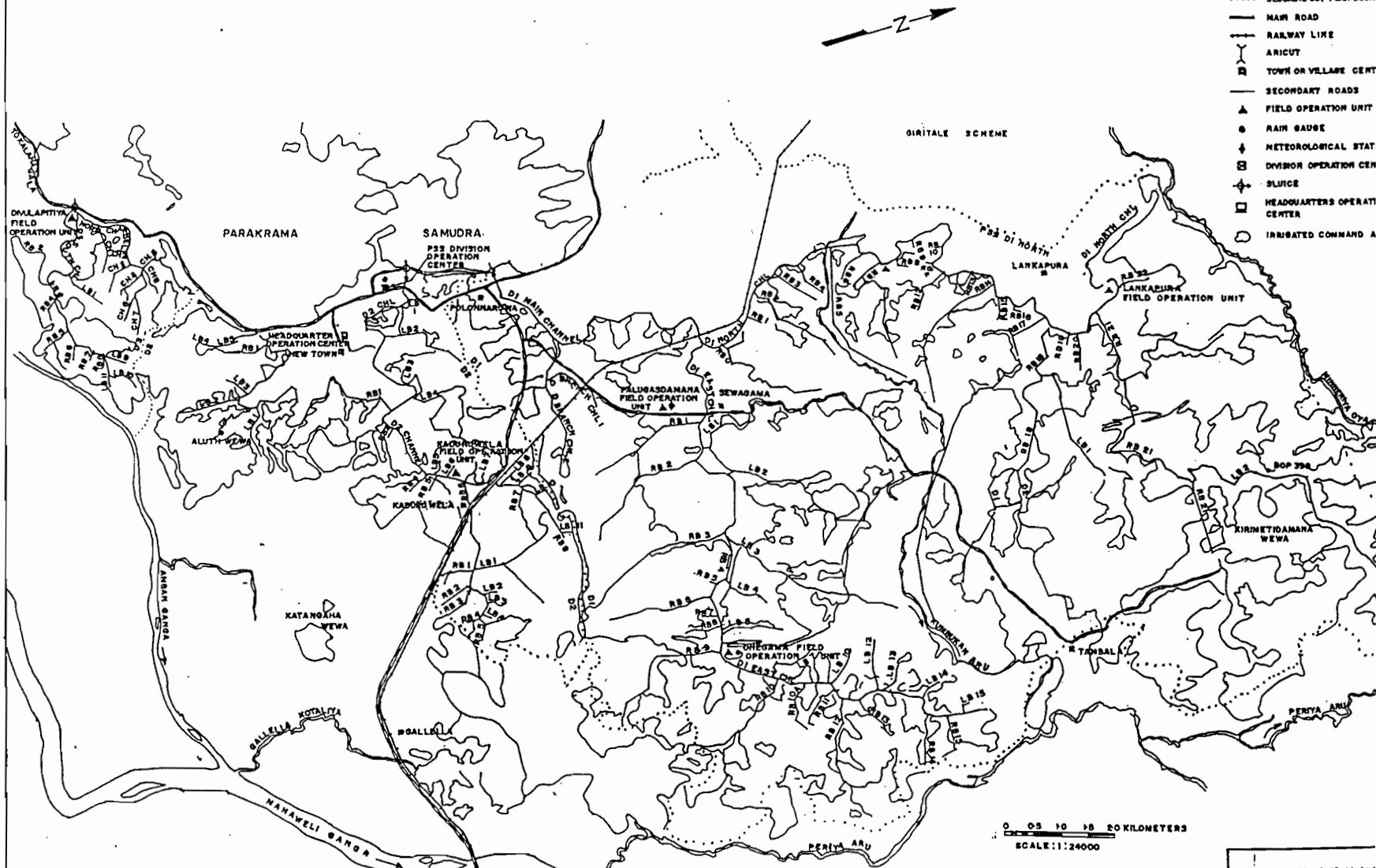

KAUDULLA TANK
KAUDULLA SCHEME
STAGE IV
DIVULANKADAWALA
DIVULANKADAWALA WEWA
DIVULANKADAWALA FIELD OPERATION UNIT
GONGODA WEWA
DANIYA WEWA
KUSUM POKUNA
STAGE III
KAUDULLA FIELD OPERATION UNIT
KAUDULLA OYA
KAUDULLA STAGE I
KAHAMBILIYA OYA
STAGE I
MINNERIYA/GIRITALE DIVISION OPERATION CENTER
MINNERIYA TANK
MINNERIYA
HINGURAKGODA FIELD OPERATION UNIT
HINGURAKGODA
GALAMUNA FIELD OPERATION UNIT
PARAKRAMA SAMUDRA SCHEME
HATAMUNA
FROM GALOYA
FROM HABARANA
KALLA WANA OYA
MINNERIYA YODA ELA
GIKILAPOTHA ARU
LEGEND
MAIN CHANNEL OR BRANCH CHANNEL
DISTRIBUTARY CHANNEL
FIELD CHANNEL
STREAM / OYA
TANK, WEWA
BLOCKING OUT PLAN BOUNDARY
MAIN ROAD
RAILWAY LINE
ANICUT
TOWN OR VILLAGE CENTER
SECONDARY ROADS
FIELD OPERATION UNIT
RAIN GAUGE
METEOROLOGICAL STATION
DIVISION OPERATION CENTER
SLUICE
IRRIGATED COMMAND AREA

Annexure 3

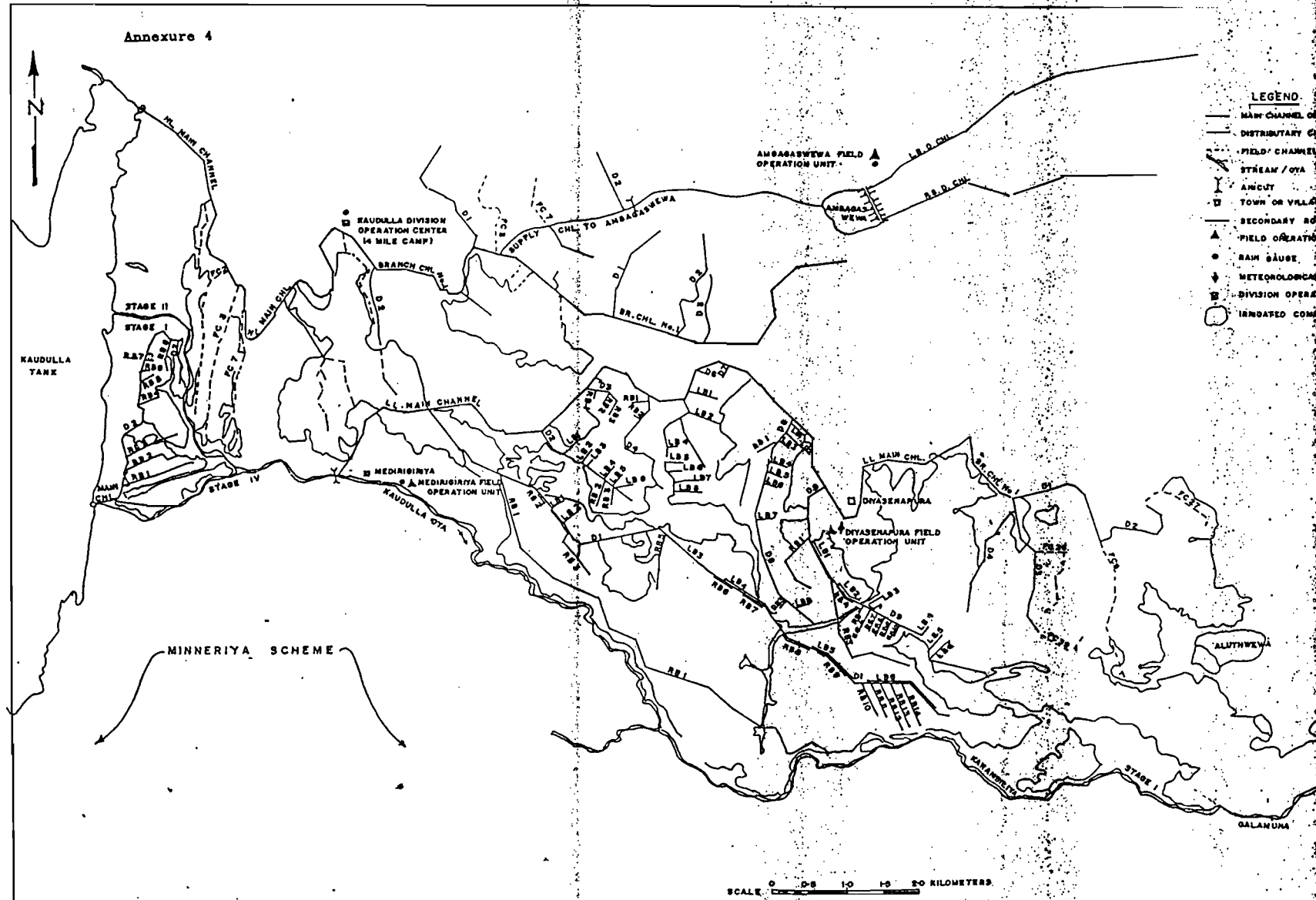

N
Giritale Wewa
Ulpotha Aru
Giritale Oya
L.B. MAIN CHANNEL
Giritale L.B.
Giritale R.B.
R.B. MAIN CHANNEL
Giritale
MAIN CHL.
Kumukkan Aru
Giritale R.B
PSS DI North
Dambala Wewa
Giritale R.B.
Divulankadawala
Anaulundera Wewa
LEGEND
Main Canal
Distributary Canal
Anicut
Stream
Tank , Wewa
Blocking Out Plan Boundary
Main Road
Rail Road
Land Use Boundary
Land Classification
Paddy
Highland Crop
Other
GIRITALE IRRIGATION SCHEME
SCALE

Annexure 1

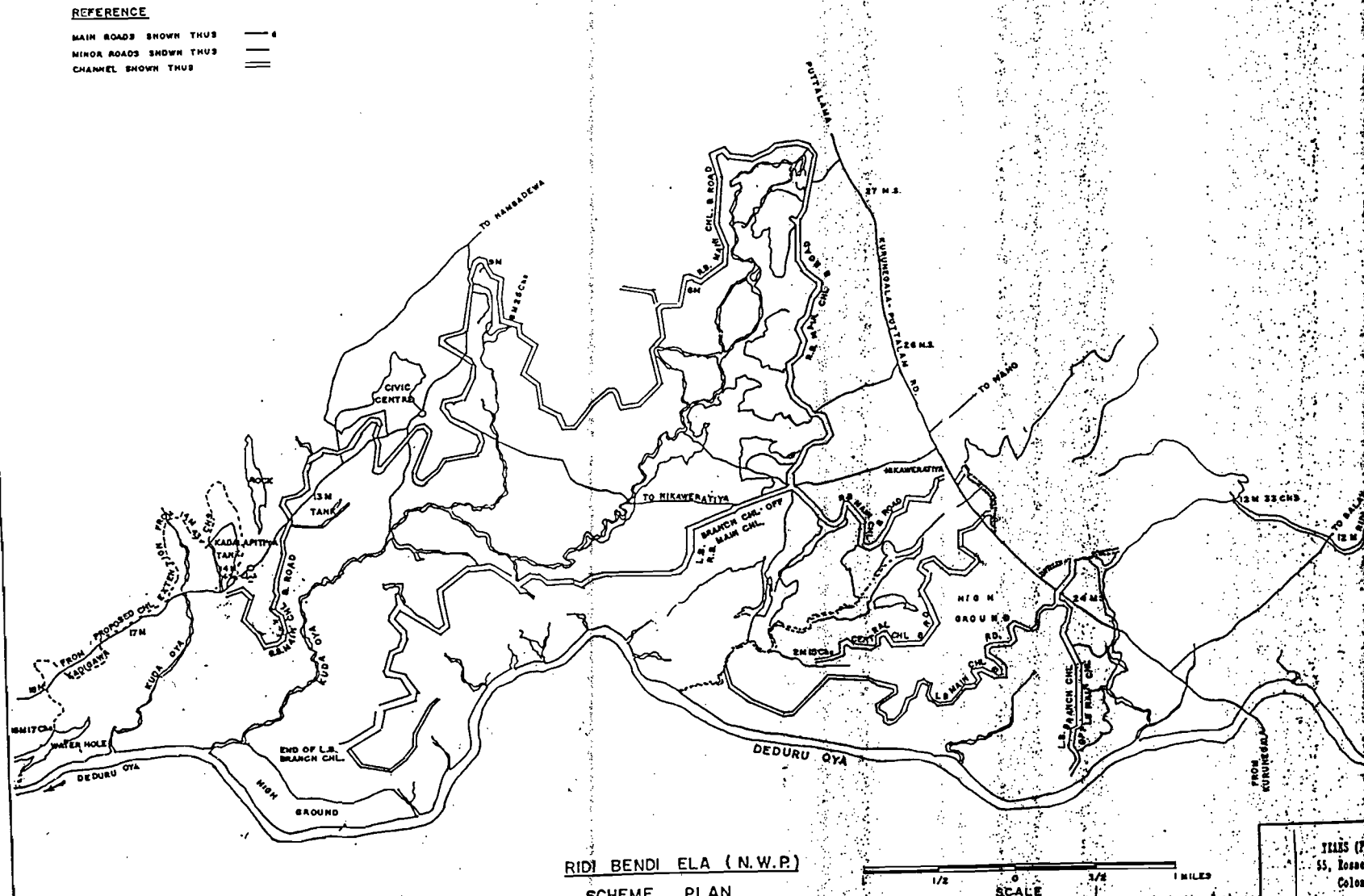
PARAKRAMA SAMUDRA SCHEME



Annexure 4


N
KAUDULLA TANK
Mi. NAM CHANNEL
STAGE II
STAGE I
STAGE IV
MAIN CHL
KAUDULLA DIVISION OPERATION CENTER (4 MILE CAMP)
BRANCH CHL. No.1
SUPPLY CHL. TO AMBAGASWEWA
AMBAGASWEWA FIELD OPERATION UNIT
AMBAGAS WEWA
LB.D CHL.
RB.D CHL.
BR. CHL. No.1
LL. MAIN CHANNEL
MEDIRIGIRIYA
MEDIRIGIRIYA FIELD OPERATION UNIT
KAUDULLA OYA
DIYASENAPURA
DIYASENAPURA FIELD OPERATION UNIT
LL MAIN CHL.
MINNERIYA SCHEME
ALUTHWEWA
KARAMBELLA
STAGE I
GALANUWA
LEGEND
MAIN CHANNEL
DISTRICTUARY
FIELD CHANNEL
STREAM / OYA
ANICUT
TOWN OR VILLA
SECONDARY RO
FIELD OPERATIO
RAIN GAUGE
METEOROLOGICA
DIVISION OPERA
IRRIGATED COM
SCALE 0 0·5 1·0 1·5 2·0 KILOMETERS

Annexure 5


REFERENCE
MAIN ROADS SHOWN THUS
MINOR ROADS SHOWN THUS
CHANNEL SHOWN THUS
TO KAMBADEWA
PUTTALAM
37 M.S.
KURUNEGALA-PUTTALAM RD.
26 M.S.
TO MAHO
CIVIC CENTRE
TO NIKAWERATIYA
BRANCH CHL. OFF L.B. MAIN CHL.
KADAPITIYA TANK
ROCK
TANK
FROM PROPOSED CHL. EXTENSION
FROM KADIGAWA
KUDA OYA
DEDURU OYA
WATER HOLE
END OF L.B. BRANCH CHL.
HIGH GROUND
HIGH GROUND
CENTRAL CHL.
L.B. MAIN CHL.
L.B. BRANCH CHL.
L.B. MAIN CHL.
24 M.S.
12 M.S.
TO BALA
FROM KURUNEGALA
RIDI BENDI ELA (N.W.P.)
SCHEME PLAN
SCALE
1/2 0 1/2 1 MILES

Annexure 6.

A break up of the Distributory Canal Level Organisations in the Minneriya Scheme

Serial No.	Name of D.C.L.O.	D Canals	Extent Irrigated (Acres)	Number of Farmers in DCLO	Number of Original Allottees
1.	Raja Ela	Raja Ela	1610	358	350
2.	Kotalawala	D2 - 13 and D14 - 20	1035	189	183
3.	Ulpathwewa	D21/LB 1,2, RB ,1,2,3.	1008	175	172
4.	Hinguraka	D21 - LB.3 RB 6 RPO 6 - 12	1140	178	175
5.	Hathamuna	R B 4 - 5	897	174	168
6.	Hingurakdamana	D 21	1023	159	151
7.	Kumaragama	D 22	868	153	135
8.	Yoda-ela	D 28 LB 1-6 RB 1-5	1464	188	182
9.	Yatigalpatana	D 28	717	200	196
10.	Kaudulla	D 28 RB 6-13 LB 7-11	1837	357	332
11.	Kusumpokuna	D 31	709	232	228
12.	Divlankadawala	D 31 A - 36 A	1427	340	335
13.	Vihara Mawatha	D 37	1497	297	297
14.	Galamuna-Gemunu	D 1	960	259	231
15.	Galamuna-Perakum	D 2 - 4	2091	490	460
16.	Galamuna-Vijaya	D 5 - 8	1747	832	113
17.	Kotikapitiya	Drainage Streams	961	200	181
18.	Kusumpokuna Mahasen	Drainage Streams D 31	857	226	221
			21,848	5007	4110

Annexure 7.

A break up of the Distributory Canal Level Organisations in the Giritale Scheme

Serial No.	Name of D.C.L.O.	D Canals	Extent Irrigated (Acres)	Number of Farmers in DCLO	Number of Original Allottees
1.	Puranagama	The field Canals take off directly from the L B main Canal and there are no D Canals under it.	950	316	331
2.	Mahasenpura	D7, D8, D9	926	275	224
3.	Agbopura	D1, D2, D3, D4, D5, D6	1996	264	155
4.	Jayanthipura	D10, D11, D12, D13, D14, D14A D15, D16, D16A, D17, D18	1089	409	335
5.	Kadawalawewa	D6, D 1/6, D 2/6, D 3/6	820	487	471
6.	Unagalawehera	D19, D20, D21, D21A, D22	1062	347	227
7.	Chandanapokuna	D23, D24	523	143	125
		Total	7366	2241	1868

Annexure 8

A break up of the Distributory Canal Level Organisations in the Ridi Bendi Ela Scheme

Serial No.	Name of D.C.L.O.	D Canals	Extent Irrigated (Acres)	Number of Farmers in DCLO	Number of Original Allottees
1.	Katagamuwa	D1, 2, 3, 4	529	511	257
2.	Magallegama	D6, 8, 10, 12, 19	634	579	338
3.	Meda Ela	Canal Pipe Outlets 1 - 18	247	175	137
4.	Balagollagama	No 9	661	377	361
5.	Dangahawela	39, 43	490	390	360
6.	Danduwawa	18, 21, 23, 25	1097	203	182
7.	Tharanagolla	34, 37, 42		189	143
8.	Budumuttawa	20, 26, 31	586	407	332
9.	Heelogama	46	338	200	132
10.	Dimulwewa	63, 76	515	224	198
			5097	3255	2440

Annexure 9.

A break up of the Distributory Canal Level Organisations in the Parakrama Samudra Scheme

Serial No.	Name of D.C.L.O.	D Canals	Extent Irrigated (Acres)	Number of Farmers in DCLO	Number of Original Allottees
1.	Kalahagala	Feeder Canal from Ambanganga anicut to Reservoir	281	78	58
2.	Alutwewa	D2 RB 1	1368	291	271
3.	D4 of D2 Main	D2 LB 1 to 6	1379	140	122
4.	Manikkampattiya	Main LB 7 to 10 and R B 6 to 9	980	163	116
5.	Sinhapura	RB 9 to 15 of D1 North	1320	236	220
6.	Lankapura	RB 18 upperportion and RB 20 of D1 North	798	150	120
7.	Thambalawa	D1 North RB 18 Lower portion	719	153	116
8.	Somapura Abayapura	D1 North LB 2 of RB 21-upper portion	937	162	134
9.	Kegalugama	D1 North LB 1 of RB 18	588	114	92
10.	Pulasthigama	D1 North RB 21 Lower portion	1230	234	191
11.	Gemunupura	RB 22 and LB 1 of RB 21 of D1 North	1524	289	254
12.	Galthambarawa ‡	Block F Plus Topawewa D1 Main	1835	685	81
13.	Sevagama	L B 1 of D 1 East	1489	290	210
14.	Palugasdamana	R B 1 2 3 4 6 7 8 of D1 East	1650	344	250
15.	Monarathenna	L B 2 of D1 East	598	116	89
16.	Damana Gemunupura	L B 3, 4 of D 1 East	800	145	106
17.	Wijayarajapura	D1 East R B 9 to 11	1070	322	167
18.	Sinharajapura	RB 12 to RB 16 D1 East	808	178	122
19.	Kalinga-ela pahala	L B 5 to 10 of D1 East	1096	238	189
20.	Sungawila	L B 2 Lowerportion of RB21 of D1 North	612	155	134
21.	Weerapura	Lower portion of RB 17 below the Kumbukkan Aru anicut	362	66	54
22.	Ambanganga	D3 North	1380	211	169
23.	Laxauyana	D1 North RB 0 to 4	664	110	89
24.	Wijayabapura	R B 5 to 8 of D 1 North	618	98	83
25.	Baudharthagama	R B 17 upper portion - D1 North	617	112	98
26.	Weerapedesa	R B 1 of D 2 upper portion	412	73	-
			------	-----	-----
		‡ Consists of Purana Villages, Village Expansion Schemes and Major Schemes	25,135	5153	3535
			======	=====	=====

Annexure 10.

A break up of the Distributory Canal Level Organisations in the Kaudulla Scheme

Serial No.	Name of D.C.L.O.	D Canals	Extent Irrigated (Acres)	Number of Farmers in DCLO	Number of Original Allottees
1.	Eksath	D1 D2	487	322	123
2.	Kalinga	D1	743	259	226
3.	Perakumpura C.P.	RB 1	1123	425	333
4.	Mandalagiriya	D2,D3,D4,D5,D6,D7	509	204	154
5.	Suhada Eksath	D8, D9	647	225	195
6.	Sri Naga	D1	368	174	164
7.	Vijitha	D4	503	213	207
8.	Vijayapura Vijaya	D3	402	209	195
9.	Samagi	D1, D2	681	300	278
10.	Menikhorowwa	Main Canal Outlets	296	130	123
11.	Sama	D1, D2	577	374	245
12.	Govi Setha	D1	320	124	96
13.	Mahindapura	D1	669	334	299
14.	Pragathi	D2	350	165	160
15.	Mahaweli	Main Canal Outlets	256	115	101
16.	Pubudu	D1, D2	822	457	367
17.	Senanayake D.S.	D1, D2, D3	477	200	185
18.	Sri Vijaya	D1, D2, D3	428	240	200
19.	Mahasen	D1	808	360	348
20.	Eksath Govi	D1	526	256	234
21.	Veera Keppatipola	D1, D2, 23	446	226	208
22.	Nagarapura Sahana	D1, D2, D3, D4, D5, D2A	768	345	338
			12,206	5657	4779

Towards the other end of the spectrum, one may next find more complex "user-oriented" product/service systems where the management process is "user-supported". Here the "user-role" is more active than "user participation" in discussion and voluntary work and the role becomes a part of the management process itself so that "joint-management" between the user and the agency can take place. In this type of management systems the user and agency are "jointly organised" to undertake the management process rather than the agency trying to mobilise the user. This is a more complex situation of "user-orientation" than the types described earlier and the system will be characterised by a higher degree of organisation which depends on a two-way functional process. In this process the users need to organise themselves to take responsibility in the management process while the agency (or agencies) should organise its new role by giving-up certain responsibilities which they were undertaking earlier so that the users can take over the responsibilities. In this functional process not only the management system becomes a joint responsibility of users and agencies but organising to do it will also become a joint task.

Further to this category, at the extreme end of the spectrum one could visualise "user-managed" systems which are fully tailor-made to user orientation. In this type of system the users will organise themselves to take over the total responsibility of management instead of leaving the system to be "user-supported" and hence it will be user-organised. An over view of the different types of user-oriented systems as discussed above are given in **diagram 4**.

From the above discussion it is quite apparent that purely because there is farmer participation in discussion, representation and even in voluntary work such as "Shramadana" in groups, it is meaningless to consider that farmers are being organised for joint-management. There is no doubt that such a position of "participation" is a more encouraging position than the situation based on mere "communication". The present study revealed that among some of the thinkers, policy makers and actors who are involved in the catalytic process of the ISMP there is a confusion arising from the

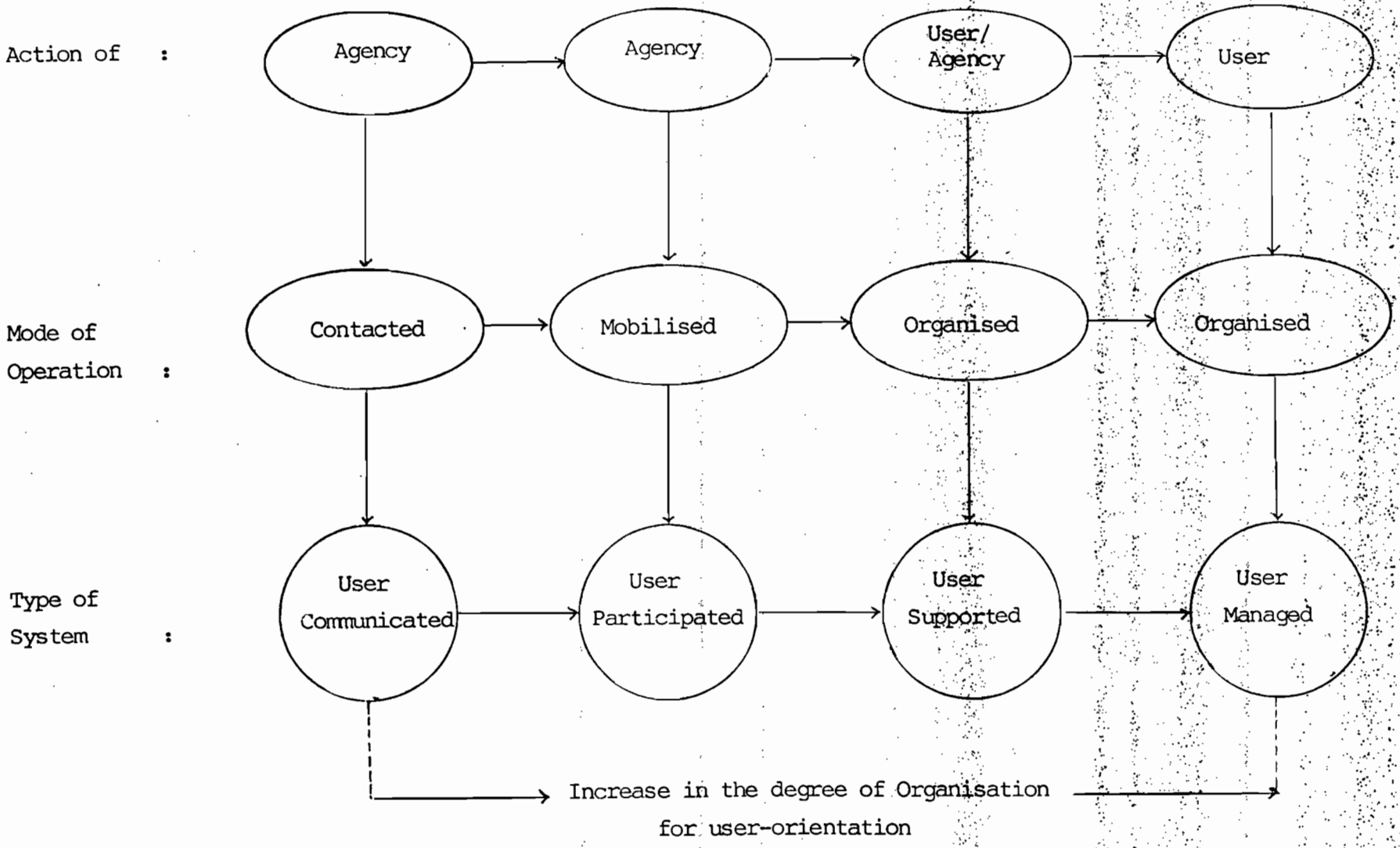


Diagram 4 : Different types of User-oriented Systems

difficulty to differenciate between the levels of "user-orientation" in terms of "communication" "participation" and "user-supported joint management". It is concluded that resolving this confusion should be seen as a primary task in order to improve the catalytic process of institution building process as thought is the driving force for action.

With the above considerations in mind it is useful to discuss the nature and scope of the process exemplified by the term "management" at the stage of concluding this study. It is being well accepted by management thinkers and practitioners that management is a process by which one can "get things done with the help of others", and it involved 3 fundamental "dynamically integrated" activities namely, planning, implementation and control. The same thinking believes that the basic nature of implementation implies: "organising", "resource-mobilising" and "directing". Therefore, the essence of any management process can be seen in terms of 5 sequential activities namely, (i) planning, (ii) organising, (iii) resource-mobilising, (iv) directing and (v) control. Therefore if an irrigation system is jointly-managed by user and agencies, then both users and agencies should jointly undertake the 5 types of activities required for its operation.

In order to "get things done" as management implies "planning" (preparation for action) is a basic need. But the necessary action cannot take place without making very conscious attempts in "organising" - i.e. recognition of relevant tasks derived from the established norms to put plans into action. Then the "resource-mobilising" becomes the essential requirement - which should be seen as a way of identifying necessary human and other resources to carry out the recognised tasks, and obtaining as well as allocating such resources in respect of the relevant tasks. The activity of "directing" involves motivating, guiding and supervising people who are available and being assigned to carrry out the recognised tasks in accordance with the established norms and procedures. These activities should lead to "control" of task performance by monitoring what actually happened, identifying the deviations from planned results and making modifications in planning and other previously mentioned activities.

Parallel to the 5 **sequential activities** mentioned above the management process of any human endeavour involves 4 **continuous activities** which are required in order to perform any of the 5 sequential activities. These **minimum activities are**: (i) **analysing situations**, (ii) identifying problems, (iii) making decisions and (iv) **communicating with people**. The continuous activities stem from 4 **basic ingredients** which exist in any management situation, namely,: (i) **reality** (of the particular situation), (ii) concepts (which exist to be used in the situation), (ii) **things** (to get done), (iv) **people** (to facilitate getting things done). The overall **process of management** incorporating the 5 sequential activities and 4 continuous activities in the light of the 4 basic ingredients can be visualised as in **diagram** 5.

The above discussion clearly indicates the difference between the "user-role" required to operate an irrigation system at the level of joint management and that of other levels such as communication or participation for agency-management. Hence the study concludes that if the purpose of development of farmer organisations is for joint-management of irrigation schemes, then both "users" and "agencies" should be in a "joint-venture" undertaking the responsibility of the overall management process involved in the entire irrigation scheme which could be visualised in terms of sequential and continuous activities mentioned earlier. This implies that the need is for the farmers and officials to work together in carrying out necessary basic activities such as: planning, organising tasks, mobilising resources, directing people and controlling performance - relating to the whole system. In other words, joint-management should be seen as an **integrated process** of the above **activities** with joint **user-agency** responsibility of the entire irrigation scheme.

The degree of organisation necessary and sufficient for this purpose is much more sophisticated and skilful than that for farmers to participate in discussions and voluntary work and for "handing over and taking responsibility" of bits and pieces of a scheme forming

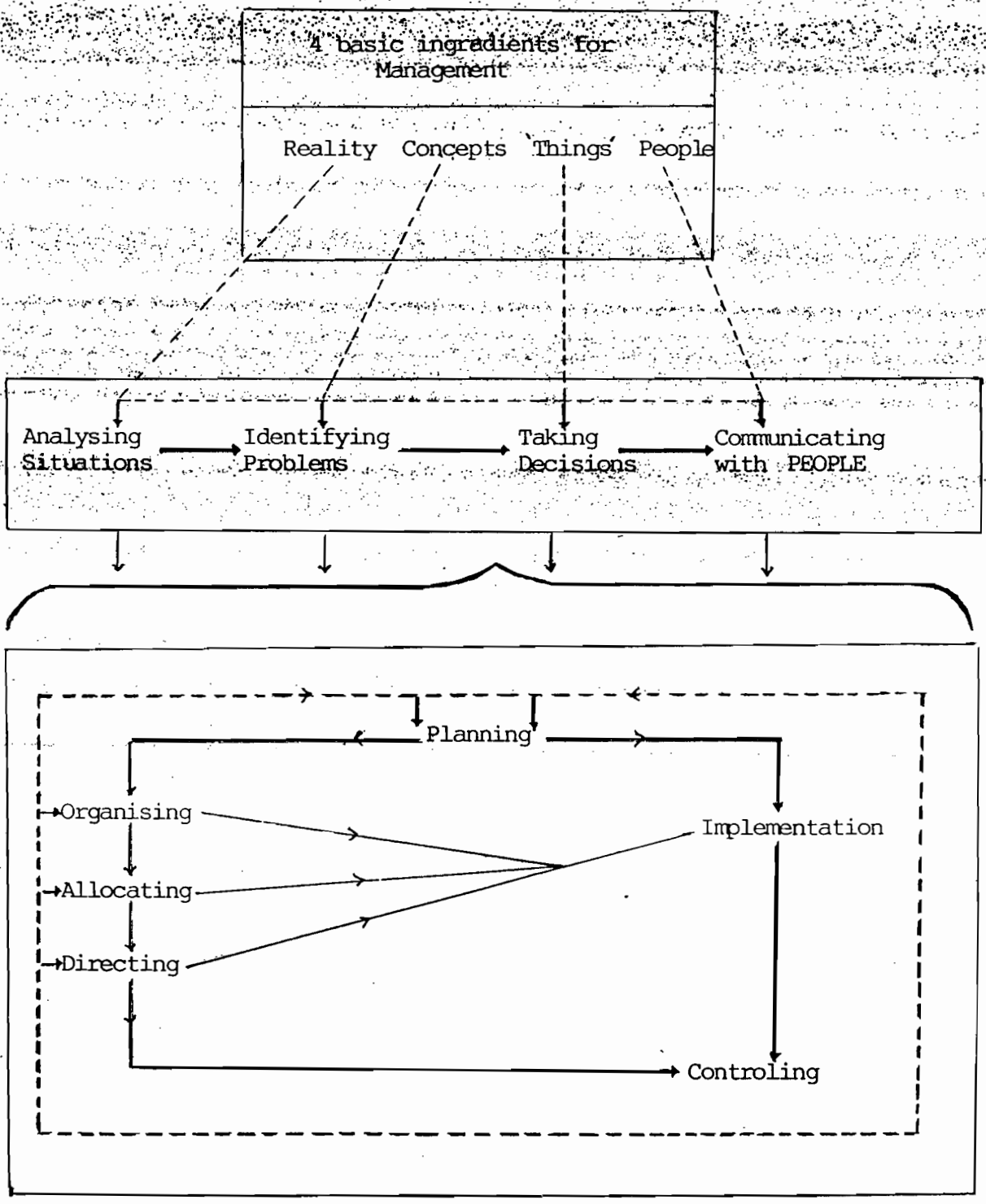


Diagram 5 : Nature of Management Process

disjointed management system. Hence the study concludes that although the efforts made and the results achieved by the ISMP is remarkable, the process of institution building requires further attention to attain its goal. It is apparent that the new direction of this process should be not only to organise farmers but to institutionalise both users and agencies as an integrated whole in joint management. This requires developing the ability of farmer organisations to undertake: planning, organising, resource-mobilizing, directing and controlling activities while improving their skills in: "identifying problems", "making decisions" and "communicating for action".

8. RECOMMENDATIONS

8.1 Formation of Farmer Organisations

i. In trying to develop FOs it is fundamental to define who should be admitted as members of such organisations. The majority of the existing members of the FOs should be allowed to decide who should be recognised as the farmer in connection with the formation of farmer organisations. However the following guidelines are recommended for the use of ISMP officials in assisting the members of FOs to think in the appropriate direction:

a. As far as possible the farming community and the officials concerned should recognise the farmer who actually farms the land and who uses the water as the 'farmer' for the time being. All such persons should be encouraged to join the FO as "they need each other."

b. At present the great majority of original allottees are recognised as members of FOs. However, only a small minority of the original allottees' children who now farm separate holdings (said to be about 60%) as well as regularised encroachers entitled to water issues and tenant (ande) cultivators are recognised as members of FOs. The ratio of allottees vs members (100:115) in the PSS bears this out. (see annex 9) The ISMP should encourage the farming community to recognise the solidarity of the nearer and smaller farmers in qualifying for membership of FOs. A membership drive sponsored by ISMP is strongly recommended.

c. As far as possible the ISMP should encourage the original allottees who are too old to farm the land to transfer their rights to their heirs who now actually farm the land. Since this is a socio-culturally sensitive issue it should be done gradually and with care.

d. two-way communication through the field canal level representatives of their needs and the programmes of governmental agencies pertaining to the agricultural production programme which includes but is not limited to the cultivation group.

iv. It is recommended that the policy guidelines relevant to the formation of FOs for joint management of irrigation systems of ISMP should evolve on the basis that the most important level for FOs to be developed is at the Distributory Canal Level. The entities at FC level and Project level should be recognised at this state as "forward and backward linkages" between farmers and officials for communication, representation and assistance to vitalise the functioning of FOs at DC level. Strong FOs at this level suggested at the IMD, ID and line departments are needed to provide the base for the highest and most effective level of joint management of the major irrigation schemes i.e. the project level.

v. As an important measure to improve the efficiency and effectiveness of FOs, the area of authority of farmer organisations needs to be defined and re-demarcated as necessary. For this purpose the following guidelines are recommended:

a. The optimum size of a distributary canal level farmer organisation is 500-1000 acres. However, where individual distributary canals serve relatively small areas which are physically isolated from the rest of the irrigable area under the scheme (e.g. the Centre Main Canal under the Ridi Bendi Ela Scheme which irrigates 247 acres) it may be best for them to be served by a separate DCLO area.

b. The office bearer or an official of a DCLO made responsible for water issues from a distributory canal or canals to the field canals could conveniently cover an area of 500-1000 acres (they often use bicycles). He will be assisted

by 10-20 field canal representatives who will be responsible for water issues within each field canal level area.

c. Where a single distributary canal irrigates a substantially larger extent (e.g. 1750 acres) it is best to break up the area into two (or if necessary more) DCLO areas. The alternative of an official or paid employee of a single DCLO serving more than 1750 acres as the water manager responsible for supervising two or more officials or paid employees who will be the water distributors covering an area of 500-1000 acres each, is not recommended. The higher level of management required for a water manager supervising water distributors is not likely to be found amongst the farmers in the ISMP project.

d. If the area irrigated by a single distributary canal is demarcated into two or three DCLO areas, it is preferable that there should be regulatory structures on the distributary canal at the entrance to an exit from each DCLO area, so that each DCLO could be responsible for water allocation within its area of authority. In any event, it will be necessary at least for informal meetings of the DCLOs irrigated by a single distributary canal to be held on an ad-hoc basis in order to decide on water allocations between DCLO areas. It is not considered necessary to set-up a Sub-Project Level Organisation or Area Farmer Organisation in between the individual DCLOs and the Project Management Committee for the above purpose. A fourth level of farmer organisation is not necessary in the 5 ISMP schemes although it may have been necessary in the larger Gal Oya scheme. Only those levels of organisation are recommended which will be sustainable by the farmers after the "hothouse" support given by the ISMP is withdrawn.

e. In practice, the demarcation or re-demarcation of DCLO areas has to be done in relation to both socio economic considerations which define one village community as an entity separated from its neighbours as well as in relation to the hydrological boundaries of the areas irrigated by the distributary canals.

f. The physical area to be covered appears to be more important than the number of farmers in determining the size of DCLOs and FCLGs. The data collected at various times by the agencies about the number of farmers itself is misleading since many people refer to the legal owner (in most cases the original allottee under the LDO) as the farmer. In reality most of these holdings have already being broken up to two or more separately farmed holdings.

vi. The need to give legal recognition and backing to the DC level farmer organisations is greater in the ISMP schemes than in other major irrigation schemes, as the DC level farmer organisations are more advanced and active in these schemes. Hence it is strongly recommended that the ISMP takes the necessary initiative to assume that such recognition is given without delay.

vii. It is recommended that there should be a fixed term of office for farmer organisations. The 3 year period used in many village level organisation is recommended as it represents a trade off between time needed to become effective in the job, and the time beyond which the office bearer of the voluntary organisations tends to get faded if he does not want another term in office. At the same time there should be provision to remove office bearers if they are not efficient enough in their functions.

viii. It is recommended that DCLOs should continue to give priority to building up and stabilising their capabilities to manage the O & M of the secondary and tertiary distribution systems while they venture out into other activities connected with:
a. agricultural production programmes and
b. other programmes for increasing farmers' income.

ix. It is strongly recommended that each DCLO should prepare its own seasonal agricultural programme. These DCLO programmes should then be used as the building blocks of the project level agricultural production programmes. This bottom-up process should replace the former top-down approach whereby the departmental programmes of the line departments are aggregated to form the project level production programme.

x. Many DCLOs are showing an interest in improving the input supplies and marketing facilities available to their members. Some are already involved in Janasaviya and other programmes to increase rural incomes and employment. At this preliminary stage of instituional development the IMD should play an active role in promoting, encouraging or discouraging the involvement of DCLOs in such activities on an assessment of the capability of each DCLO to fulfil its primary responsibilities for the O & M programme. However the IMD should not over do this role in order to create state control over FOs.

xi. The Project Committee should be reconstituted as the Project Management Committee and given legal recognition under the Irrigation Act while making use of the following guideline:

a. The Project Management Committees should have a clear majority of DCLO representatives
b. They should have the right to elect any member as their chairman
c. The Project Management Committee should have responsibilities of the planning and implementation for the rehabilitation and maintenance of the distributory canals and the field canals

xii. It is recommended that greater attention should be paid by the ISMP to developing the Project Management Committees as the highest level farmer organisation for the joint management of major irrigation schemes, pending their legal recognition as Project Management Committees.

xiii. It is **not recommended** that there should be parallel committees i.e. a **project management committee** and a **project level farmer organisation**, so that the latter could make representations at the political level and also function as an apex body. The apex body should be a joint management committee consisting of officials and farmer representatives. The latter could make representations at the political level if they so desire. This occurs already in the case of the farmer representative from each project committee who as a member of the DAC and speaks on behalf of the farmers at the DAC. The project managers are also members of the DAC and speak as officials.

xiv. There is no objection to the **DCLO representatives** of the project (management) committee meeting as a sub-committee of the latter to discuss matters which

a. they may want to discuss in the absence of the officials
b. the officials may not want or have time to discuss with them

Such a sub-committee would meet when necessary before or after the project management committee meeting, thus avoiding an additional series of meetings.

xv. It is recommended that the purpose of developing farmer organisations should be explicitly for joint-management of irrigation systems between farmers and state officials and it should be practised in addition to using as a theme for discourse so that the management system becomes **user-supported** (i.e. supported by the farmers)

rather than **public-supported** (i.e., supported by public funds). For this purpose action should be taken not only to **institutionalise farmers** but to "humanise" (create a feeling for people orientation) state agencies which are operating in the area of irrigated agriculture by changing the attitude to bridge the gap between the officials and the the users.. The purpose is much broader than that of transforming the funding of the O&M system from the government to the farmers.

xvi. It is not possible to manage **different components of an irrigation system** such as the headworks, main and branch canals, distributory canals and field canals as separate and isolated components by separate groups. The notion of "**handing over**" the field canals and distributory canals of major irrigation systems to farmer organisations while considering that the Irrigation Department will be responsible for the management of the headworks, main and branch canals is counter productive. It is recommended that the operational norm should be:

a. the farmer organisation should be encouraged to make a major management input towards the distributory and field canals while the Irrigation Department continues to play a management role in such canals simultaneously by providing technical guidance to farmer organisations

b. the Irrigation Department should play a major role in managing the head works and main and branch canals while recognising the important role that the farmer organisations can play in that farmers are the beneficiaries of the system

c. the project committee comprising of both officials and farmer representatives should be developed to facilitate the joint-management of the overall system by embracing both (a) and (b) above.

xvii. The emerging pattern of joint partnership in management should be examined carefully to understand the nitty-gritty details and whether the agreement is realistic enough for farmers to have faith in the new organisational framework which would pave the way for FOs to take increasing management responsibilities.

xviii. It is recommended that carrying out a perceptive study on farmers expectations out of a participatory management process is an important requirement to assess the current programmes in relation to the new directions envisaged by ISMP.

8.2 Improvement of Functional Environment

i. The process that paves the way from mobilisation to organisation through active participation is clearly emerging in the ISM project area. This indeed is a singular achievement and a very important signpost in the programmes implemented for institutional development for irrigation management. A difficult threshold has been passed and all-round acceptance from officials, especially from the ID staff, is a good indication that difficult times are mostly over. It is recommended that at this stage every aspect of this emerging process be closely monitored and constructively analysed and criticised to ensure a safe 'landing'.

ii. It augurs well for the irrigation sector because ID's decision to revise its own strategies and project a different approach will be highly complementary to the current phase of development in institutional building. ID should now formulate its own specific plan of action and submit them before the farmer community as commitments and promises.

iii. IMD should continue to play the catalytic role in a learning process approach and endevaour to consolidate on its accomplishment to develop a sector-wide communication process which will facilitate other schemes to adopt lessons from ISMP.

iv. In order to increase the efficiency of FOs in undertaking rehabilitation and maintenance work the following measures are recommended:

a. Farmer organisations and project (management) committees should participate in the preparation of priority list for maintenance and rehabilitation works. These priority lists should be approved by the project (management) committee and adhered to by the ID in implementing the ISMP rehabilitation programme.

b. The FOs should be motivated and given confidence to undertake the earth work and civil construction works, both through community participation (shramadana) and through self-help based profit oriented strategies.

c. The ID administrative and technical officials should ensure that the estimates for the works to be undertaken by the FOs are always realistic and are made available to the FOs in time, to start the work in the close season.

d. The FOs who undertake the civil construction work, should be provided with some financial support to start their work if they do not have capital resources.

e. The FOs, making initial preparatory arrangements for the civil construction work, should be given adequate technical instructions.

f. They should be supported by providing standard pre-constructed devices such as pipe outlets, and other requirements such as metal, cement etc., which may be difficult to obtain due to situational problems.

g. The ID should ensure that payments are made to the FOs after completion of the work by minimising avoidable delays.

h. If some FOs are willing to award the work to suitable private contractors, then an environment should be developed for healthy competition amongst the latter.

i. In view of the wide variety of views expressed by officials of the D.D., the IMD and line departments, and by farmer organisations regarding the pace with which the devolution of responsibility for the operation maintenance and rehabilitation of distributory canals (and even the maintenance of rehabilitation of structures in the field canals) could be effected, it is desirable that joint guide lines should be issued from time to time by the ID and IMD.
   a. at the national level and
   b. by these two organisations at the district level

j. Communication and cooperation between the farmer organisations and the two line departments and agencies such as the Land Commissioner's Department, Agriculture Department, the Agrarian Services Department, the Animal Production and Health Department, Agricultural Department Authority, Agricultural Insurance Board, Cooperative Development Department, the Paddy Marketing Board and the State Banks need to be substantially improved. At present sufficient action is not being generated to ensure active participation by the line departments and agencies: their present action is greatly limited to discourse at committee meetings. We recommended elsewhere that responsibilities of these Departments would be to participate in the bi-annual workshops that should be held at the district level.

k. The long term benefits of institutional strengthening of farmer organisations can only be utilized if there exists proper coordination and cooperation between various line departments and agencies involved. The process of institutional building of farmer organisations

in necessarily an integrated one where achievement will greatly depend and improved into institutional relationships.

v. The joint consultative committee consisting of the officials of the ID, IMD and Sheladia which monitors the overall activities in the ISMP could be deemed to be a sub-committee of the DAC. The proliferation of organisations and committees is not recommended.

vi. In view of the wide variety of views expressed by officials of the ID, IMD, line departments and farmer organisation regarding the degree to which the devolution for the operation and maintenance and rehabilitation of distributory canals could be effected and the timing of the changes, it is stongly recommended that more attention is given to issue joint guidelines by the ID and IMD:
a. at the national level and
b. by these two organisations at the district level

vii. To hasten the current process unleashed in ISMP it would be invaluable for IMD to devote about half an hour daily on prime time in Raja Rata Radio to discuss the progress and events leading to the successes in ISMP and develop a communication process. TV may also be used for a national level audience.

viii. The need to understand and conform to specific situations existing in the respective irrigation systems should be an important lesson emanating from ISMP experience which irrigation practitioners cannot afford to ignore. This should be an important conceptual component in discussions during training and also in other instances.

ix. The proliferation of other forms of organisations attempting to address several of other issues concerning farmers would be effectively contained by launching a nation wide programme on radio and TV to communicate on the new leadership which has emerged in major irrigation systems. In many

instances attempts to set up parallel organisations are being made due to poor communication of different facets involved in organisational change and development relating to farmer organisations in major irrigation systems.

x. INMAS programme should now be analysed anew in the light of new changes emanating from ISMP areas to determine whether certain aspects of the programme should be especially highlighted and other new components to be added as objectives of the overall programme.

8.3 The Catalytic Process

i. The role IOs as "change agents," motivators "behind the scenes facilitators", "advisors on institution building at the level of the farming community" needs to be defined in more specific and pragmatic terms and communicated to the IOs themselves, the farmers and the officials concerned. A definition of what their role may not help. They are not intended to be "farmer leaders" "easy to approach officers without official powers" "go between" "reporters to the PM" "assistants to the PM" etc. It is strongly recommended that in defining their role and functions a series of "do's" and "dont's" should be identified and communicated to the IOs.

ii. It is recommended that the presently hired probationary IOs are not the best choice to play the role of the catalyst. It is recommended that the IMD should review its policy of recruitment of IOs by considering the advantages and disadvantages of the presently selected personnel which are given below.

a. The Probationary IOs are easily available and intelligent persons can be recruited if a good selection is made.
b. They are "sons and daughters" of the farmers and thus know the farmers' behaviour patterns and are very acceptable to the community.

c. Being from the same locality as the farmers, they are sometimes looked down upon by the elders as not acceptable to receive advice from.
d. Knowing that the IO position is temporary, they tend to find alternative employment.
e. They do not possess the intellectual ability and the professional competence to play the role of a change agent.
f. IOs should be available at the appropriate time but only for a relatively short period and hence the recruitment process should not be time consuming. The present choice has this advantage.

iii. When looking for alternate candidates the easily identifiable choices are:- the newly passed out trainees from medium level institutions such as farm schools, or the newly selected recruits for middle level field officers posts such as KVSS, AII, COO etc. The opportunity to work as an IO will no doubt help orient these newly passed out trainees and recruits for their future positions while the institution building process will be benefited in return. Such a choice would have the following advantages and disadvantages:

a. The newly passed-out students from the institutions concerned or the newly selected persons from the Departments concerned, will be motivated, energetic and would consider working as an IO advantageous as it will offer them much needed experience. They would accept the opportunity and the challenge with confidence.

b. They would be more willing to accept a temporary post before they are recruited for a permanent post as it will improve the prospects for their getting the latter.

c. They are more suitable as IOs since the IO Programme can he gradually thinned out without either being handicapped suddenly by lack of personnel, or being saddled with an unwanted number of personnel who will be unemployed if the cadre is reduced once the FOs are established.

iv. Although it is too late to make any impact within the ISMP by a change in recruitment policy at this point of time it is recommended that the ISMP should in future recruit those holding Diploma in Agriculture or equivalent level officers as IOs when vacancies arise. This experimentation will be of great benefit to the INMAS programme outside the ISPM.

v. The role of the IO who may be called a change agent motivator, facilitator, advisor etc. is in reality a combination of all these facets of farmer community-based institutional building. In these terms the effectiveness of the IOs depends on their ability to develop the capacity of a "Consultant in Institution Building" at the level of the farmers' community for the purpose of orchestrating the decision-making process among farmers. This essential capability has to be developed among IOs within an extremely brief period of time bearing in mind that IOs will play this role only for a short time. The achievement of this task cannot be realised merely through training programmes and the existing consultancy inputs of ISMP. Therefore, it is recommended that the IOs should be provided an opportunity to develop this capability through an **on-the-job performance improvement programme** conducted by an experienced professional in institutional building with a strong base in the relevant conceptual thought. The IOs should be able to discuss their operational difficulties and consult the professional expert to find ways of improving their day-to-day working skills while the expert should at the same time find pragmatic measures for performance improvement based on his own observations of the ISMP and of the work of the IOs in it. It is suggested that this type of professional input should be provided only for a short period but with immediate effect as a way of updating the efficiency and effectiveness of the IOs.

vi. The IOs have a special need for training since the great majority of them have very little training apart from the two weeks intensive training courses. It is recommended that they should be given a refresher training course of preferably ten days duration each cultivation season during the period recommended earlier. The proposed joint workshop for two or three days should be the last component of these training courses.

vii. The achievement of farmer training when applied to a farming population of 40,000 - 60,000 persons is highly doubtful. It is also not possible to make any substantial impact on such a large number of people through a formal training programme. Therefore, it is recommended that as an alternative to formal training, the ISMP should build up an awareness among farmers of the need to participate in farmer group activities at the field canal level and farmer organisations activities at the distributory canal level and the project level.

viii. In order to build up this awareness, farmers need to be informed of what can be achieved by these entities. The knowledge that is required

a. can be laterally spread by the FC representatives and the IO
b. can be disseminated at the General Meetings of the DCLO including the pre-kanna meeting.
c. can also be spread through shramadana programmes, field days, film shows and the mass media.

ix. It is strongly recommended to organise a specially designed training programme for the three principal office bearers and the committees of DCLOs.

a. This programme should provide a training component for the knowledge that is required by them to function as water distributors and organisers of maintenance of their field canals.

b. It should also have a component to provide the knowledge that they will require to manage (directly or indirectly through paying a water distributor) the distribution of water from the distributory canal system to the field canals

c. It should enable them to manage the maintenance programme for the entire DCLO area.

d. They should be trained in the management of the DC level organisation viewed as community development organisations.

e. They should also be trained in the management of contracts for maintenance and rehabilitation works which involve a component of technical knowledge best imparted by the officials of the Irrigation Department.

x. It is recommended that the special training programme mentioned above which should be organised for the committee of two or three DCLOs together should also include a workshop based on the concept of joint-management where they interact with the officers of the ID, IMD and the line departments whom they will have to meet time and again in functioning as committee members of their DCLO. Such workshops will actually give two-way benefits i.e. the officials concerned will improve their awareness of the needs and perceptions of farmers and farmer organisations while farmer representatives will understand better their role in joint-management and the way in which they could synchronise with the officials.

xi. It is recommended that there should be two such workshops per year. These workshops should generally be organised not during the close season when DCLO organisations and officials have heavy work loads but during the period when the crops are one to two months old. Generally this is a period of lower work loads for the farmers as well as for the officials. The emphasis on workshops rather than on training courses is suggested because many of the officials and quite a few DCLO office bearers have a good formal knowledge of what they are expected to do. On the other hand their

xv. The outcome of these workshops should be an important input to the monitoring process at the project level by SAI and the national level by the standing committee.

xvi. It is recommended that a few personnel need to be engaged full time in designing, implementing and periodically improving the training programmes and workshops. The location used as a training centre should be provided with basic audio visual aids such as an overhead projector, a magi-board, flip charts, a video cassette recorder and a TV. These facilities could be hired for use by other organisations in the Polonnaruwa district when they are not needed for the ISMP training programme.

xvii. It is recommended that the section on "Utilization of Time by IOs" in the "Institution Officers' monthly report format" should be changed. The emphasis should be moved from the reporting of data on to the analysis of the activities of IOs.