

**Achieving the Participatory Management Vision:
Building the Capacities of the Existing Irrigation Department
and Irrigation Management Division**

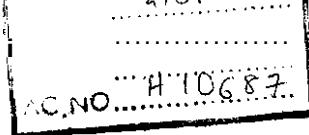
By
Douglas J. Merrey

IMPSA

IRRIGATION MANAGEMENT POLICY SUPPORT ACTIVITY

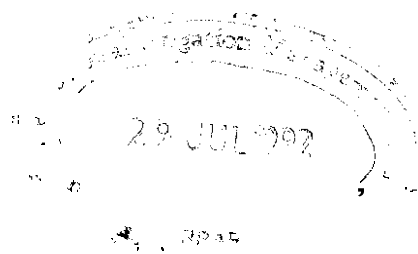
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* Prepared as a paper to support IMPSA Policy Paper No. 4 - 'Modernizing the Irrigated Agriculture Sector: Transformations at the Macro-Institutional Level.'

Dr. Douglas J. Merrey is the Head, Sri Lanka Field Operations (SLFO) Division, International Irrigation Management Institute.

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**ACHIEVING THE PARTICIPATORY MANAGEMENT VISION:
BUILDING THE CAPACITIES OF THE EXISTING IRRIGATION DEPARTMENT
AND IRRIGATION MANAGEMENT DIVISION'**

1. INTRODUCTION

1.1. Purpose

The first three IMPSA Policy Working Papers Propose important changes in the functions, missions, responsibilities, and implementation strategies of the government irrigation management agencies. These changes can be summarized as a shift from a primarily "control" function to a primarily "support and facilitate" function. The three papers also highlight the necessity for significant changes within these agencies in order to implement the participatory management programme effectively, and achieve the broad objectives set out in these papers. PWP 1, setting out a broad "vision" of the future, specifically includes a vision of a process of evolution of the various agencies toward one single irrigation management agency at the national level, to be built around the Irrigation Department (ID), and to include the Irrigation Management Division (IMD) and appropriate components of the Mahaweli Authority of Sri Lanka.

Policy Working Paper (PWP) No. 4, entitled "Modernizing the Irrigated Agricultural Sector: Transformations at the Macro-Institutional Level," will spell out the changes required in the irrigation management agencies necessary for long term success. PWP 4 will be based on five Staff Working Papers (SWP), which will be detailed analyses of the key agencies involved, as well as of provincial and local governments and the private sector. The present paper, SWP 4.1, focuses specifically on the ID and the IMD of the Ministry of Lands, Irrigation and Mahaweli Development. Its purpose is to propose a broad outline of the changes required in these organizations in order to achieve the ambitious objectives set out in IMPSA Policy Paper No. 1, and a strategy for achieving these changes.

1.2. Objectives

The specific objectives of SWP 4.1 are:

1. to identify the kinds of changes required within the ID and IMD, in terms of their mission, personnel, organizational structure, organizational culture, recruitment

¹. The author was assisted in the preparation of this paper by a Consultation Panel composed of Messrs. K. Yoganathan (DI), D.W.R.M. Weerakoon (ID), S.Senthinathan (ID), K.W. Perera (ID), D.M. Ariyaratne (D/IMD), A Gunasekera (IMD), Joe Alwis (M/Coconut Industries), T.H. Karunathilaka (ADB Institutional Strengthening Project), I.K. Weerawardena (Consultant, MASL), N.G.R. de Silva (D/IMPSA) and Nihal Fernando (IMPSA).

promotion and incentives policies, communications, degree of centralization versus decentralization of decision-making authority, financial management, and other supporting services;

2. to propose a strategy to be used by the ID and IMD to bring about necessary internal changes in order to be able to implement the new policies effectively; and
3. to propose, if possible, a strategy for achieving the long term objective of the creation of a single effective national agency to achieve the long term objectives of the, new participatory management policies.

A key issue addressed in the paper is the extent to which the Government should go for radical institutional changes in the short run, versus a slower process of evolution and change from within, leading ultimately to the necessary radical changes. There are important trade-offs involved in this decision, as discussed below.

1.3. Methodology

As has been the case for other IMPSA Staff Working Papers, several methodologies have been used in preparing this paper. These include:

1. Intensive discussions with senior management staff from both the ID and IMD, who along with IMPSA secretariat and IIMI/SLFO staff, the Coordinator of the Asian Development Bank-supported Institutional Strengthening Project, and several external specialists, constituted a Consultative Panel. This panel met officially four times, and subcommittees of the panel held additional meetings. The members of the panel are given in Appendix 1. The members of the panel were unanimous in supporting the broad objectives of IMPSA and the purpose and objectives of this paper, but it proved difficult to achieve a full consensus on the means to achieve these; i.e., the details in this paper. Nevertheless, the paper represents a broad consensus, after a lot of give and take and compromise; while not every member entirely agrees with every detail, most members agree on most points.
2. Background data were collected by an IIMI Research Associate and Research Officer through study of key documents and key informant interviews. In addition, these officers carried out a survey of a small sample of senior and middle level officers to obtain their views. The results are summarized in Appendices 2 and 3 of this report.
3. An early draft of this paper was presented to a consultative workshop in which about 30 senior and middle level officers of both ID and IMD participated. The draft has benefited greatly by the suggestions and recommendations that emerged from that workshop.
4. A number of important papers and documents were consulted, including the recommendations of the Institutional Strengthening Project on IMD's structure and management, the papers on ID and IMD reorganization contained in papers presented at a 1990 Workshop sponsored by the Sri Lanka -- IIMI Consultative Committee (IIMI 1990), and various internal documents on the present structure

and operation of the ID, and proposals for reform generated within the Department itself.

A serious problem hampering preparation of this paper is the lack of adequate data on the actual management, communication and operational processes within the ID and IMD. There is a lot of research on system performance, farmers' behavior, cropping patterns, etc, but the internal management processes of the managing organizations themselves have gone largely unstudied so far. The paper has had to depend on statements by agency staff which tend to reflect official policies and expectations rather than actual observed processes, official documents, and perceptions of outsiders whose views may be biased or incomplete. Most successful efforts at organizational transformation in other organizations, as described in the organizational change literature, have included the presence of neutral trained observers to collect data and feed it back to those planning a change process, and a continuing observational process to provide data for guiding the change process.

Finally, an important conceptual problem that faces all efforts at organizational change is an understanding of the complex relationships between changes at the individual level and the organizational level. At the individual level, we can observe very important changes over the last decade within the ID and other agencies in regard to many peoples' attitudes, perceptions, understanding, and motivation, largely a result of both training and experiences. But it cannot be assumed that such individual level changes by themselves are sufficient to bring about a change in the organization's actual behavior and effectiveness. Nor can we assume that changes at the organizational level, for example a new organizational structure, by themselves, are sufficient to bring about changes in individual behavior.

There is a complex mutually reinforcing relationship between change at these two levels, and both must be addressed simultaneously. This complexity, moreover, makes a change program a very complex one in which the exact outcomes of specific inputs are not entirely predictable. This is why a change process requires a deep understanding of the issues, effective monitoring and feedback systems, full participation of the staff, and very effective leadership.

Time constraints -- IMPSA is on a very tight schedule -- prevent thorough study of all of the issues involved. This paper does not attempt a complete description of the history and present status of the ID and IMD. Rather, it attempts to focus on those key issues that need to be addressed soon, and also identifies a longer term process for refining and elaborating the changes required in the future.

2. ANALYSIS OF IRRIGATION DEPARTMENT: KEY ISSUES

2.1. The Mission and Objectives of the Irrigation Department

The Irrigation Department (ID) has a long and honorable history from the beginning of this century. It has implemented the policies of the Government very effectively. Those policies until recently emphasized construction of new systems to add to the stock of irrigated area. In fact the very success of the ID is an important reason why Sri Lanka has

now moved decisively from a "construction phase" to a "management phase" in its irrigation development (Aluwihara and Kikuchi 19915).

The main objectives of the ID are officially stated as follows (ID 1984):

1. development of land and water resources for irrigated agriculture, hydro-power and flood control;
2. provision of irrigation and drainage facilities for cultivable land in irrigation and drainage projects; and
3. water management for production of crops.

In 1990, in a document on the "new mandate and future functions of the Department" (ID 1990), the Department retained the first two objectives as given above, but proposed modifying the third to insert; after "water management," a phrase given in brackets: "(management jointly with water users)". But whereas previously the Department identified 8 functions as deriving from its objectives, in the 1990 proposal it increased the number of proposed functions to 20, including several relating specifically to O&M of systems, promoting farmers' organizations; and joint management of systems with farmer organizations. The proposal includes important suggested measures for reorganizing the Department to be able to fulfill this broader mandate.

From these documents we can conclude two things:

1. Senior management in the Department are trying to accommodate the Department to the new requirements, and are very open to making important changes to be able to effectively implement its broader mission;
2. Nevertheless, the Department finds it difficult, by itself, to radically reorient itself, for example by recognizing its future construction functions may be less important, and giving central place to operation and maintenance and provision of support services to farmers' organizations. This is shown by the modest change proposed in the objectives, which continue to emphasize construction.

Therefore **ID Issue No. 1** is identified as follows:

The present and recently proposed mission and objectives of the Department are not fully consistent with the need to have an irrigation management agency able to improve and sustain the performance of existing irrigation systems, assist farmers to develop and strengthen their organizations to enable them to take over increasing levels of system management responsibility; and provide necessary technical and management support services to the Provincial Departments and farmers' organizations. It is not clear that the Department could bring about the necessary re-orientation and re-structuring without some outside assistance.

2.2. Personnel Policies of the Irrigation Department

The ID, like all government departments, is governed by the prevailing public service system. This system, while having many strengths, has been recognized as needing considerable reform as well, for example by the Administrative Reforms Commission. Many of the rules, regulations and policies are out of date and not appropriate for the modern tasks of the public service. One serious problem is that the public service system presently has few incentives to reward and encourage a high level of performance and innovativeness. Thus, the people of Sri Lanka are not getting the full benefit that would be possible given the generally high calibre of people. The constraints inherent in this system have an important impact on the Department, and may be regarded as a critical constraint to achieving the ambitious objectives of the Government.

Presently all middle and senior management positions are filled by civil engineers who are members of the Sri Lanka Engineering Services (SLES), with the exception of the post of Additional Director for Personnel and Administration, and a few administrative and specialized scientific research positions. The Department is a "closed" department, in the sense that recruitment and promotion to most professional posts, and senior posts with the one exception noted, is from within the ranks of the civil engineers based on seniority. This has had important advantages: it has helped maintain a remarkable level of unity and esprit de corps at least until recently; and it has enabled the Department to resist undue outside interference, thus maintaining its independence and professionalism.

However, given the expectation of major changes in the mission, objectives and functions of the Department, the characteristics that have been sources of strength are to a considerable degree now impediments to achieving these changes. There are at least two key issues, as follows:

ID Issue No. 2:

In order to become an effective "multidisciplinary" organization, the ID must in future create some positions for non-engineers, i.e., become truly multidisciplinary, and in order to attract the best people, there must be some reasonably good career prospects for both engineers and non-engineer professionals.

ID Issue No. 3:

The emphasis on promotion entirely based on seniority reduces the incentives toward high performance and responsiveness to clients, and makes it difficult to ensure that the best-qualified people are in the appropriate positions.

2.3. Organizational Structure of the Irrigation Department

The present organizational structure of the ID "is constituted by the Director of Irrigation to establish the engineering and administrative functions" performed by the Department (ID 1984). The head office includes branches each with divisions, units and sections, while the field level generally consists of range, field division, project and subproject offices. The ID is managed by a Director of Irrigation (DI) who has overall as

well as technical functions; he is assisted by two Additional Directors, one of whom is

Director for Personnel and Administration, and they in turn are assisted by Senior Deputy Directors.

The DI can delegate his authority to these people, who then act on his behalf keeping him informed (ID 1984).

In brief, this organizational structure can be characterized as follows:

1. it is highly centralized and hierarchical;
2. there is a tendency, as a result of its centralized nature, for a separation of actual responsibility from actual authority, resulting in many decisions being taken at a higher level in the hierarchy than would be functionally required. Even where official authority is delegated for example to a Range Deputy Director, higher authorities are often asked to take decisions perhaps out of a concern about "second guessing" or fear of taking responsibility;
3. although there are formal and informal processes of consultation among the directors through which many decisions are taken only after much discussion and consensus building, nevertheless this hierarchical structure, reinforced by the strict seniority system, inhibits the development of more participatory group processes for problem solving. This affects not only the decision-making processes within the Department, but also affects the ability of Department personnel to overcome the long-standing hierarchical relationship with farmers, and work effectively in a participatory manner with them;
4. there is evidence that the present management structure is not effective either in terms of communication among the levels of the hierarchy, or in terms of performance monitoring and evaluation of staff and the programs being implemented. Thus, it is clear that: a) many project level staff do not yet understand or accept the new policies of participatory management, and in some cases are even resisting its implementation; b) management is not always fully aware of the gaps between head office and project level understandings; c) there is no systematic planning and performance monitoring and evaluation system to ensure that programs are being implemented, with the exception of construction projects;
5. the present management structure is based on the past objectives of the Department which emphasized planning, investigating, and constructing new facilities; it does not reflect the present emphasis on O&M and institution-building. A few years ago the Department created a position of Senior Deputy Director for Water Management, whose position description has many of these elements (ID 1984), but since the incumbent departed a few years ago, the position has been vacant:

Some of these problems have been recognized recently by senior ID management. Very constructive and important proposals have been put forward to re-organize the departmental structure to give more emphasis to O&M, institutional development; and

applied research (Weerakoon 1990; ID 1990). To date the Department has not received approval to implement these changes. Any proposed re-structuring must take these proposals into account and build on them.

Therefore, **ID Issue No. 4** may be stated as follows:

The present organizational structure of the Irrigation Department is not appropriate to its new mission, objectives, and functions. The present communication system among levels is also not very effective, leading to serious problems in implementing the new participatory management policies.

2.4. Performance Monitoring and Resource Mobilization

A previous Staff Working Paper (SWP 2.7) has pointed out that the ID does not at the moment have an adequate system for monitoring and evaluating irrigation system performance, and proposes some measures for improvement. In fact, the paper suggests that such performance monitoring as used to be done in the past is now not used. This would suggest that there are some kind of institutional constraints that make it difficult to implement and sustain a performance monitoring and evaluation program.

In addition to monitoring and evaluating irrigation system performance, there is a strong need for an effective system for monitoring organizational, and thus staff performance, linked to a system for addressing shortcomings, and providing incentives for higher levels of staff performance. At the moment the ID has no such systematic system, and the performance of its staff is largely dependent on individual interest and motivation. Our small rapid survey of ID professional staff suggests there would be a high degree of support for a change in the performance evaluation system for staff linked to promotions and other incentives.

The Department often points out that a major reason for the low level of irrigation system maintenance and general poor performance is that the Department is given very inadequate resources. A recent study confirms this resource gap (TEAMS 1991). But the same study goes on to demonstrate clearly that the present system for budgeting, allocating, prioritizing, and using funds is not accompanied by a performance-based monitoring system, and that the management of maintenance, and more broadly the management of resources for O&M leaves much to be desired.

Thus, two more issues can be identified;

ID Issue No. 5:

The resources presently made available to the Department are not adequate to achieve its present mandate. They would be even less adequate if that mandate is expanded. More generally, O&M is greatly underfunded.

ID Issue No. 6:

The Department is using those resources that it does have inefficiently. This applies to both human and financial resources: The major reason is the absence of performance monitoring and evaluation systems tied to a system of incentives for achieving high levels of performance.

2.5. Water Resources Planning and Development and Project Development

Planning and development of water resources is an important and long-standing function of the ID. The ID routinely collects data on water flows in river basins, but collection of data on groundwater resources is done by the Water Resources Board. This leads to a certain fragmentation of data. In addition, there is presently no on-going systematic program to use the data collected on water availability, along with other data on demands and alternative uses of water, for systematic planning and development of water resources. This problem was recently highlighted by the consultancy team preparing the North West Province Water Resources Project,

Related to this gap, is the present lack of an institutional capacity for project identification, development, and design. Most ID projects are designed by consultants, often provided by the donor. This has led to projects that were inappropriately designed, and to which the Department staff were not entirely committed (Nijman 1991). Conceptualizing and designing complex water resource development projects, including irrigation projects, requires specialized management skills presently not available in the ID, leaving the ID overly dependent on outside consultants.

Thus, the final two issues to be discussed are identified as follows:

ID Issue No. 7:

The country presently has a poorly developed institutional capacity for water resource planning, development and management. The ID has some expertise, but it is not well-organized and supported.

ID Issue No. 8:

The ID has no expertise in project identification and development, leaving it overly dependent on outside consultants, which often leads to projects that are not appropriately designed and difficult to implement.

3. ANALYSIS OF IRRIGATION MANAGEMENT DIVISION AND ITS RELATIONSHIP TO THE IRRIGATION DEPARTMENT: KEY ISSUES**3.1. The Mission and Objectives of IMD**

The Irrigation Management Division (IMD) was created by the Ministry in 1984 primarily to implement the Integrated Management of Agricultural Schemes (INMAS) Programme in about 35-40 major irrigation settlement schemes. As part of this effort, its

system-level Project Managers had two major responsibilities:

- a. develop an institutional framework for farmers to participate in irrigation system-management through farmers' organizations and joint agency-farmer committees; and
- b. coordinate the provision of agricultural services and inputs from the various government and non-government agencies at scheme level.

In addition, IMD was assigned other responsibilities, including overseeing and coordinating O&M service fee collection (now basically defunct), allocation of O&M funds from the government to the Irrigation Department; management of special donor-funded projects, especially ISM and MIRP, and advising the government on various issues pertaining to rehabilitation, management and institution-building.

The IMD has been an important mechanism through which the Ministry has promoted experiments in institution-building, and elaborated methodologies for implementation of what later came to be formalized as the Participatory Management policy. At project level, project managers generally have pursued both major INMAS responsibilities vigorously. On some schemes as the Project Management Committee has become more effective, the coordination function has been carried out increasingly through this Committee. At head office level, and in the eyes of many external observers, the development of an institutional framework for farmers' participation in system management has received the most attention, and has had the most impact on policy.

However, the IMD was never intended as a "permanent" organization. With increasing frequency, one hears suggestions that it is time to consider incorporating the institutional development and project management functions within a reformed Irrigation Department. If this is done, the question arises as to whether the IMD staff would also be incorporated, or whether some or all staff would be retained in the Division with new functions assigned to the Division. Our brief rapid survey (Appendix 3) and other sources also show considerable anxiety among IMD field staff regarding any possible merger of ID and IMD.

In 1989, under the Institutional Strengthening Project supported by ADB, the consultants made a number of important recommendations for strengthening IMD's operations, which were accepted at a workshop and by the IMD itself. However, implementation required obtaining some additional staff. Since the Government is presently going through a restructuring process including long-term reduction of staff, the IMD has not been able to obtain the necessary cadre to increase its effectiveness. Yet simultaneously, one finds additional demands and tasks being added, including the recent decision that IMD should assist the MASL in developing its participatory management programme. Much of the present IMD budget comes from two donor-funded projects, ISMP and MIRP, both of which are scheduled for completion in mid-1992. This will further reduce the resources available to the Division.

From the beginning it is fair to say that many people in the Irrigation Department, and also outside the Department, have had serious reservations about whether having a

Ministry Division implementing activities that in principle belong within the Department is the appropriate approach. IMD has been effective in developing programmes for implementing participatory management, and in ensuring that certain donor-funded projects have a strong institution-building element at scheme level. However, one "cost" of this separation is that the many ID staff do not feel they have a stake in working with farmers' organizations. They often refer to them as the IMD's organizations, and often do not deal directly with the farmer representatives, preferring to work through IMD with farmers instead. There may be good historical reasons for having created IMD, but it can be argued that continuation of this Division parallel to the ID will in the long run will inhibit the development a new integrated participatory management system.

From the discussion above, we can distill three key issues:

IMD Issue No. 1:

As a result of government public service restructuring policies, the IMD is unable to obtain sufficient resources to carry out its present functions effectively, let alone to expand its activities as desired by the Ministry. With the end of two major donor-funded projects in mid-1992 (ISMP and MIRP), these resources will be further reduced. Thus IMD is facing a critical crisis in terms of resources.

IMD Issue No. 2:

While the creation of the IMD may have been a correct decision at the time it was made, presently one unintended consequence of its continuation is that the development of multidisciplinary irrigation management capabilities in the ID, including working with farmers to develop effective system-level management systems, is seriously inhibited. If the ID is going to develop these capabilities then one key to the change is the IMD itself.

IMD Issue No. 3:

If it is accepted that the ID should develop its broader irrigation management capabilities, then the role of the IMD should be re-considered. There are two options: 1) discontinue the IMD and incorporate its staff and functions into the ID; 2) continue the IMD but in a new role, either as a management "consultant" to assist the ID and MASL to build their own institutional capabilities or in the role of monitoring and evaluating, on behalf of the Ministry of Irrigation, the progress of the overall implementation of the participatory management policy.

3.2. The Relationship of the ID and IMD

This issue has been referred to above but needs to be highlighted. At present, one finds considerable tension and apprehensions by the staff of both ID and IMD toward each other: This was reflected in the panel itself and in the consultative workshop. Many ID staff believe that IMD field officers are pitting the farmers against them; that IMD gets the credit while ID staff do the work; that IMD staff have certain "perks" and facilities not enjoyed by ID staff; and that building FOs is the responsibility of IMD, for which ID has

no concern. Many IMD staff also hold to some perceptions, such as that ID staff do not cooperate adequately to build FOs; while farmers' first complaint and concern is about water, "we", i.e., IMD staff, are helpless; IMD staff have a lot of responsibility but no authority; and there are concerns about the future prospects of the IMD and the staff.

The factual position is that both ID and IMD are engaged in the same operation -- irrigation management -- and functions like canal O&M and building FOs to take over some of these functions cannot be separated. It is the ID that must turn over canals; and maintain subsequent supporting linkages with the FOs, so the ID staff must be closely involved in building the organizations. But since for a number of reasons it is difficult for ID technical staff by themselves to build effective FOs, there is a need for a separate set of institutional specialists working closely with the technical staff and farmers to build FOs. Logically, therefore, the most appropriate arrangement is to have one agency for irrigation management in the major schemes to ensure this integrated approach. Since the IMD is not a permanent department, and does not have the regional organizational arrangements, staff, or resources, it is a re-organized ID that should be the core of this unified irrigation management agency.

4. PROPOSED ORGANIZATIONAL REFORMS

4.1. Introduction

The panel discussed at great length the degree to which a radical change is required, for example a completely new organization formed under a new legal mandate to replace the present Irrigation Department; or radical change of the Department itself, including a new name, new mission, and new personnel recruitment policies; or a phased re-orientation and change process within the ID. A related question addressed at length was whether the ID and IMD should be amalgamated, and if so, on what kind of time frame and on what terms.

It is fair to say there was no complete consensus on any of these questions. Outsiders, not surprisingly, advocated more radical change than could be accepted by the senior ID and IMD management staff on the panel. The latter offered very cogent arguments for a less radical approach, including the importance of identifying changes and a change process that could be accepted by the ID and IMD staff themselves. Too radical an approach would lead to severe conflict and resistance, which would undermine the chances of achieving the mutually-agreed objectives. On the other hand, it was recognized that some significant changes are necessary that may not be very popular initially to the staff of the agencies. A balanced approach is required. A key underlying question is, "what are the minimum changes required to ensure effective implementation of the ambitious participatory management programme?"

This section is therefore based on the following assumptions and concepts:

1. The necessity for fairly radical changes in ID/IMD for success to ensure their capacity to implement the Government's participatory management policy as articulated in IMPSA Policy Papers 1-3;

2. The necessity to build on the present organizational and personnel base, and to proceed in stages: through a participatory approach;
3. The necessity for external assistance and support, in terms of a clear agreement with the Ministry on what will be done, by whom, in what time period, and with what resources, including external sources of management expertise;
4. The necessity to balance the need for radical and timely change with the need to plan and implement these changes with the participation of IIS and IMD staff.

4.2. Proposed New Mission and Objectives of the Irrigation Department

The overall mission of the Irrigation Department should be to develop water resources for irrigated agriculture, and to provide technical and management services to water users for the optimum use of the country's water resources, with special reference to irrigation management, for effective implementation of the Government's Participatory Irrigation Management policies.

The objectives of the Irrigation Department should be:

1. to be responsible for overall planning, development, and conservation of the water resources of the country;
2. to plan, construct, operate, maintain and improve irrigation schemes and drainage and flood control schemes (outside the Mahaweli);
3. to promote the establishment and strengthening of farmers' organizations to build their capacities for irrigation management and improvement as well as for other functions to improve the profitability and productivity of irrigated agriculture;
4. to provide management and technical assistance and advice to both provincial council departments and farmers' organizations responsible for management and improvement of their irrigation schemes, to ensure they are able to do so efficiently and effectively in a sustainable manner;
5. to work with farmers' organizations in implementing the policies of self- and joint-management of irrigation schemes; and
6. to identify, test through applied research, adapt, and disseminate new irrigation technologies and management practices that would enhance the long-term sustainability and productivity of irrigated agriculture.
7. Building on its research and management experience, provide guidelines for setting national standards in terms of design specifications and quality control to assist provincial and other agencies and farmers' organizations involved in

construction, modernization, and operation of irrigation systems.

In other words the Irrigation Department will be the premier irrigation management agency in the country, responsible for implementing the Government's participatory management policies as described in the IMPSA Policy Papers, and for assisting farmers to use water productively so as to increase their incomes.

To reflect this expanded and important mandate, a suggestion has been made to change the name of the Department. A number of options have been suggested, including "Water Resources Management Department" (WRMD); "Irrigation Management Department" (IMD); "Irrigation Development and Management Department" (IDMD); and "Department of Irrigation Management and Development" (DIMD). However, there is no consensus on this (see next section).

4.3. Organization and Structure of the Irrigation Department

The present organizational structure of the Department is designed to fulfill the earlier construction-oriented mission of the Department. With a new mission, and new objectives, it will be necessary to re-organize the Department so that it can effectively implement them. The new Department must be organized so as to be an effective multi-disciplinary and output performance-oriented department, i.e., working through interdisciplinary teams whose performance is measured by their outputs based on plans and standards, and it must be sufficiently decentralized to ensure decisions are made and implemented at a level appropriate to the problems being addressed.

Attached is an organogram depicting the proposed new structure of the Department at head office and range levels, in a broad way. Several important features may be noted.

1. The Department would be re-organized into two subdepartments, each headed by an Additional Director of Irrigation. One would be the Additional Director for Irrigation Management, the other Additional Director for Technical Services. Each of these Additional Directors would be supported by Senior Deputy Directors for certain important functions.
2. The Director of Irrigation would be supported by three cells, one for public and parliamentary affairs, another a planning and monitoring unit, and a third for coordination of services to the Provincial Councils (the latter to be headed by a Senior Deputy Director). The Director, assisted by Senior Deputy Directors, would be responsible for overall planning and performance monitoring; public relations; and direct supervision of services to provincial councils, financial management, human resource development (HRD) including personnel management, and administrative support services.

HRD is a new function, that will oversee the development and implementation of an overall human resource development programme, designed to ensure the Department develops and maintains the range of skills and expertise required to fulfill its mission, and that there is a long-term career development process to enable professional staff

to develop to their full potential within the Department; The HRD unit would provide overall policy and planning guidelines to ensure that the human resources are available to implement the department's programme effectively in the long run; it would also manage the administration of personnel. It should be linked to the Management Development and Training Unit (MDTU) in the Ministry.

The remaining management and technical functions will be delegated to the Additional Directors.

3. The Additional Director for Irrigation Management, will be responsible for implementing the Government's participatory irrigation management policy. He will be assisted by Senior Deputy Directors for Institutional Development and Training; Operations and Maintenance; and Rehabilitation and Modernization, as well as Project Directors for special donor-funded projects, and a Deputy Director for the Research Management Unit. This subdepartment will plan and implement programmes for: promoting and strengthening farmers' organizations for irrigation system management; implementing the policy to turn over systems to farmers' organizations for self-management; working with farmers organizations for joint-management of larger schemes; providing management and technical services to farmers' organizations for operation, maintenance, improvement and modernization of irrigation systems and for modernization and diversification of irrigated agriculture; and applied research to develop test and adapt new irrigation technological and management innovations.

Since the primary functions of the range and divisional units of the Department will be irrigation management, the Deputy Directors of Ranges will also report directly to the Additional Director for Irrigation Management, and will be guided by the Senior Deputy Directors within the Subdepartment.

4. The Additional Director for Technical Services will be responsible for water resources planning and development, design and construction, and a range of specialized services including the hydraulics laboratory, land use division, equipment management, etc. He will be assisted by Senior Deputy Directors for water resources planning and development; construction; and specialized services.
5. To ensure the Department becomes an effective multi-disciplinary department -- essential for it to achieve its mandate -- there must be attractive career opportunities for non-engineering professionals as well as engineers. On the other hand, certain functions will continue that require an engineering background.

A key component of this proposal therefore is that certain positions will be reserved for SLES; certain ones for SLAS (as at present); and certain ones would be open to persons from a variety of relevant disciplines. This includes the positions of Additional Director for Irrigation Management; Senior Deputy Directors for Institutional Development, Human Resource Development and Agricultural Planning; Project Directors; and Deputy Director for Research Management; and at the range and project levels, Institutional Development Managers and Project Managers. It is emphasized that these positions would be open to all disciplines, including SLES personnel, with the relevant capabilities.

6. The Range Deputy Directors' primary responsibility will be to supervise the implementation of the Government's participatory irrigation management policy at the field level. He will be assisted by a Chief Irrigation Engineer for supervision of technical activities, an Institutional Development Manager for supervision of the institution-building and training activities, and an Agricultural Officer who may be on deputation from the Department of Agriculture. Project Managers responsible for working with farmers' organizations (as at present under the INMAS program) as well as Division Irrigation Engineers will report to the Range Deputy Director.

Alternative Option. An option that was discussed but on which no consensus was reached is as follows:

1. **As** a part of the proposal to re-name the Department as mentioned above, it was also suggested that the Director's status should be enhanced by re-designating him as "Director General." The proposed subdepartments would then be headed by full Directors.
2. Instead of two subdepartments, three were suggested: a Director for Irrigation Management, a Director for Technical Services, and a Director for Water Resources Development, reflecting the broader role envisioned. In fact, the Department's December 1990 proposal (ID 1990) also provides for three "Additional Directors".

No consensus was reached because it was suggested that under current civil service rules, there is no provision for an enhanced position, called "Director General" higher than a Director; creation of such a post would be appropriate only if a new organization, like an Authority or public board or corporation, were being proposed. Most panel members felt it is premature to propose such a radical change as this.

The present author nevertheless found the idea of having a "Director General" over two full Directors an attractive one, though only one panel member explicitly supported it. We suggest that the question of whether there should be two or three subdepartments could be re-opened later, as the Department evolves. Our rapid survey of ID personnel (Appendix 2), as well as discussions at the Consultative panel, demonstrate widespread support for a restructuring of the Department along the lines proposed in this paper; it is only on details that there is disagreement.

Finally, reference was made in an earlier section to a recent study on the management of maintenance, and the funds allocated for O&M (TEAMS 1991); Policy Paper No. 2 recommends a project-based open budgeting and accounting system. This author very strongly recommends the Department make a serious effort to improve, its overall system for financial management, linking it closely to performance. Efficient use of existing resources would lead to improved Department performance, and would also provide an objective basis for identifying the resource gap and seeking to fill this gap.

4.4. Personnel and Human Resource Development Policies of the Irrigation Department

As noted above, an important change will be the opening up of certain key positions within the Department to non-engineers, in addition to those positions that will continue to

be reserved for engineers. These "open" positions will be recruited through a selection process from among public servants (SLES, SLAS) of the relevant level of seniority. Initially preference may be given to persons within the Ministry of Lands, Irrigation and Mahaweli Development. As the in-house capability develops, senior positions would normally be filled through promotion from within the Department. Thus, there will be attractive career opportunities within the Department for non-engineers. It has been suggested that the proposed positions for Senior Deputy Director (Agricultural Planning) and Agricultural Officers attached to the Range Office could be filled from the Sri Lanka Agricultural Services, through a secondment arrangement.

At present there is no effective system for evaluating performance of Department staff. Promotions within the SLES are based strictly on seniority, with no consideration for performance and capability. Such a system provides no incentives for achieving a high level of performance, and encourages staff to take a low-risk approach of performing at a lower level than many are capable of doing. Our rapid survey (Appendix 2) suggests a wide support for some changes in this system, though some find it difficult to publicly support change. Effective implementation of the new irrigation management policies will require changes in peoples' behavior and attitudes, new skills, and a high level of commitment and high individual performance. In other words, the Department needs to re-orient itself to being performance-oriented.

Therefore, for both engineering and non-engineering professional staff, the Department should develop an objective, effective, and fair personnel performance evaluation system. A suggested approach is outlined here, though further professional assistance might lead to alternative suggestions.

The suggestion here is: following a prescribed format and set of standards that is keyed to the overall mission and functions of the Department and the responsibilities of the staff member, each person would be evaluated annually by his or her supervisor, and rated on a scale for overall effectiveness. This format would be used by the supervisor to assist staff to recognize their strengths and weaknesses and overcome the latter, and as a mechanism for rewarding good performance. The performance evaluation would be discussed by the supervisor and the person evaluated, and the person would be asked to sign the evaluation if he agrees, and add any points he or she wishes to. If he or she disagrees with the evaluation, a written statement on the basis for disagreement would be prepared and sent to the Director of Irrigation.

The SLES and SLAS personnel within the Department would each be grouped into "slabs" based on seniority. Four slabs might be appropriate. Thus the principle of seniority presently in use would be retained, but modified in terms of "slabs" rather than strict ranking based on date of appointment. Promotions would be from within designated seniority slabs for positions, but based on performance.

In order to ensure the system is implemented in an objective and impartial way, without outside interference, a Performance Evaluation Commission would be formed, consisting of retired senior Irrigation Department (SLES, MLTS) and SLAS personnel. This Commission would have three functions:

1. to establish an overall system for performance evaluation and monitoring;
2. to review any cases in which a person has disagreed with a performance evaluation and make a recommendation to the Director of Irrigation;
3. to rank all Department personnel within their respective service (SLAS, SLES, etc), within slabs based on seniority. This ranking would be the basis for promotions of staff within each slab.

Implementation of this system should be preceded by a period of careful planning, communication of the plans to staff with ample opportunities for them to provide their inputs, and training particularly of supervisors.

Another important innovation on the personnel side that is required for success is for the Department to develop a Human Resources Development plan for Departmental staff. This is discussed in detail in SWPs 7.1. and 7.2. The proposed re-organization includes a provision for a unit to manage this function, which would enhance the long-term career prospects of staff; ensure that professional development opportunities are provided based on needs, interests, and performance; and thus contribute to the long-term development of the Department's capabilities.

An important issue requiring further research and analysis is the question of improving the performance of the other support services, i.e., the clerks, typists, store keepers, office aides, and the like. At present there is little incentive for these staff to perform at the required standard, and little control over their performance by professional staff. This problem is a wider one in the public services. Urgent attention is strongly recommended.

4.5. Relationship of the Department to the Ministry of Irrigation

A key question to be addressed here is the future role of the Irrigation Management Division (IMD), and the relationship of the Department to the Irrigation Management Division if it continues, and the Ministry more broadly. It has been generally agreed by the Government that Ministries should focus on policy making and monitoring of its implementation; they should not be doing policy implementation. At present the IMD, a division of the Ministry, is implementing the INMAS program on selected major schemes.

As discussed above, the IMD has been a pioneer in developing and testing approaches to implementing the participatory management policy. Its very success is a major reason why a process like IMPSA is now possible, to consolidate the gains made. It was always the intention of the Government that IMD would be a temporary division, and in the long run, the implementation functions should be transferred to the Irrigation Department. It would therefore seem logical to use this opportunity for incorporating IMD's implementation functions, and much of its staff, into a newly re-organized Irrigation Department.

IMD staff have expressed serious apprehensions about amalgamation with the Irrigation Department (no doubt there are apprehensions on both sides, a natural thing

when changes are proposed). Nevertheless, given the integrated multi-disciplinary socio-technical nature of irrigation management, it is felt by most people that a single integrated department with broad irrigation management functions is essential for future success. Therefore two options are possible:

1. Go ahead with amalgamation of IMD and ID in a phased manner and try to manage the ensuing problems;
2. Proceed with reorganizing the ID, to be phased in, and recruitment of the required non-engineering staff to work initially outside the INMAS systems while retaining IMD's role in systems under INMAS. IMD staff would be invited to apply for positions, and at a later stage, when the ID expands its responsibilities into INMAS schemes, IMD staff would be given the opportunity to apply.

This paper recommends option number two, which may be considered as a phased implementation program in phases as given in the next section on implementation.

It will be important to establish a small but effective unit within the State Ministry of Irrigation to monitor the performance of the irrigation management policy implementation, and to continue to re-evaluate and refine that policy based on lessons learned. Ideally, this should be built around the IMD itself.

5. PROPOSED STRATEGY FOR IMPLEMENTATION OF THE ORGANIZATIONAL REFORMS

5.1. Joint Task Force to Guide the Change Process

The re-organization process needs to be meticulously planned -- this paper provides only a broad set of guidelines. A very high level task force consisting of Irrigation Department, Irrigation Management Division, and other Ministry people, assisted by outside expertise as necessary, should be formed to plan and guide the implementation of these changes.

5.2. Implementation Phases

It is useful to have a set of benchmarks and a time table to guide the process. The timetable could be somewhat flexible depending on the experiences and problems faced. A broad outline of a possible approach is given below.

Phase 1 Re-organization [and re-naming?] of Irrigation Department and Initial Integration with Irrigation Management Division

- a. Implement re-organization of ID at head office and field levels, and post institutional staff in non-INMAS schemes;
- b. All Range Deputy Directors of Irrigation to be made ex-officio Deputy Directors of IMD, and to take instructions regarding INMAS activities from Director of IMD.

c. Intensive programme of workshops, team building, and training to prepare all parties for new responsibilities.

Tentative time frame: Begin in 4th quarter of 1991; continue until first quarter of 1993.

Phase 2 Consolidate Reorganization of ID through Integration of IMD

a. Evaluation of the progress of the ID by the joint task force of senior ID, IMD, and Ministry officials;

b. ID to take over all implementation functions of IMD and most IMD staff to be absorbed into ID;

c. Re-organization of remaining IMD staff and enhancement as needed to carry out supervision and monitoring of irrigation management activities on behalf of the State Ministry of Irrigation.

d. Continued intensive training, workshops, team building, and problem-solving exercises to ensure a smooth transition and effective implementation of government policies.

Tentative time frame: Evaluation of progress in early 1993 and implementation during same year if progress is satisfactory.

Phase 3 Establishment of a single irrigation management agency built around the Irrigation Department, and including Mahaweli

This is Contemplated only near the end of the decade, once the new Department is well-established and in a position to expand further.

6. PROPOSED METHODOLOGIES FOR IMPLEMENTATION OF THE ORGANIZATIONAL REFORM

This section briefly outlines some of the methodologies and actions required for successful implementation of organizational reforms. It should be read in conjunction with the SWPs 7.1 and 7.2 on human resource development, which provide important suggestions as well. The discussion is at a general level, i.e., applicable equally to both the Irrigation Department and Irrigation Management Division. It will be important to bring staff from both these agencies together frequently and fully involve them in the process of change.

The first section of this paper has emphasized the complex relationships between organizational-level change and individual-level change. To be sustainable and effective, change must be carried out at both levels simultaneously. Introducing a new organizational structure without attention to the individual human dimension will not result in successful change in overall performance. Training individuals without also changing the organizational context within which they work is equally futile. The previous sections have

emphasized organizational change; this section emphasizes the equally important changes within individuals.

In this section four key principles are discussed: leadership; participation; values; and specificity. Four methodologies are also briefly identified: training; workshops; performance incentives and accountability; and professional assistance.

6.1. The Four Key Principles

Leadership. Effective leadership is absolutely essential for implementing a successful organizational change programme. The organizational change literature is very clear on this: successful efforts always have had good leadership; the absence of good leadership is always a key factor behind failures. In the ID and IMD, leadership would primarily be provided by senior management in the initial stages, but as time goes on, leaders will develop within smaller units of the agencies as well.

Leadership involves articulating the mission, objectives, principles, values, and "vision" of the future, and how each individual can contribute to achieving this vision. It involves setting an example, being consistent in applying the basic principles, and in a sense "creating" the new organizational values and culture. This can be done most effectively when a leader acts as a "mentor" or a "coach" (as in a sports team), rather than an order-giver. Thus the leadership must itself be fully committed to the mission and objectives, and effectively communicate this commitment to the rest of the organization.

This view of leadership de-emphasizes the use of formal authority to achieve the expected results. It goes beyond simply issuing directives and orders, and taking action against people who do not implement them. Although obviously individuals differ in their "natural" abilities in this regard, as in other activities, it is possible to develop leadership qualities through training.

Participation. When managers try to impose changes through authoritarian means, particularly in well-established organizations, the result often is a greater degree of resistance to the changes. In the modern world, and in the specific context of Sri Lankan institutions, an authoritarian non-participatory approach is unlikely to succeed. Further, since the new mission calls for agency staff to implement a participatory management policy with farmers, it follows that participation should be practiced within the implementing institutions.

Thus it will be important for senior management to ensure the active participation of the agency staff, at all levels, in the effort to bring about organizational changes. Authority should be decentralized as much as possible commensurate with peoples' responsibilities. Changes in job descriptions and procedures, development of plans and performance evaluation criteria, and implementation of the programme should be through teams, small problem-solving groups. Special efforts will be required to overcome the current hierarchical nature of relationships among levels and the misunderstandings and suspicions between people of different disciplines and levels, and to encourage initiative and leadership qualities to emerge at all levels.

Values. Recent literature on organizational change has emphasized the importance of "organizational culture", the set of basic values, beliefs, understandings, that is shared by members of the organization, and in terms of which they operate and give meaning to what they do. The ID and IMD, as on-going organizations, presently have sets of shared values within each organization that contribute to their esprit de corps, and provide a basis in terms of which people understand, interpret and retain their commitment to what they do. But the values required for implementation of a participatory management policy are not necessarily those that are appropriate for a construction-oriented agency. What is required is a "new professionalism" that goes beyond and enhances the normal professional values of various disciplines.

The suggested basic values to be developed and inculcated include: a value on participatory decision-making and team work; openness to new ideas; an orientation toward experimentation and innovativeness; a strong orientation to service to farmers' organizations; a performance, i.e., output, orientation; and commitment to the mission and objectives of the agencies, i.e., to implementation of the participatory management policy.

Specificity. This refers to the importance of moving from general principles, values and goals, to specifying tasks, objectives, expectations from people, criteria for evaluation, etc. People must know exactly what is expected of them, what they are to do, and how they will be judged and rewarded. A key component of success will be the development of detailed job descriptions, detailed plans, and detailed performance evaluation criteria. This specificity should be achieved through a participatory group process, not imposed from above. In other words, staff should be involved in developing their own position descriptions, in an interactive team process, that will lead to a level of specificity that is a basis for action, and that will result in a thorough understanding of and commitment to what the person is to do, what other members of the team are doing, and how it all fits together into a programme.

6.2. The Four Methodologies

Training. IMPSA SWP 7.1 discusses training in some detail, and should be referred to. Training should become an important activity at all levels of the organizations; training units and professional training specialists will be needed. As part of the reorganization process, a detailed training needs assessment should be carried out, and training programmes designed to fulfill these needs. A long term training programme, tied both to the agencies' mission and the long term career development needs of the staff should be planned and initiated. The kinds of skills required for implementing a participatory management policy go beyond the usual technical skills (though these are important), and include specific skills in management, leadership, and human relations. Role playing would be a particularly effective training methodology in helping people understand their new roles.

Workshops. Formal training implies a notion of transferring new knowledge and skills to help people do their jobs better. In one sense workshops can be used to fulfill this function. But workshops provide an opportunity to go beyond simply "receiving" knowledge, and actively participating in the generation and shaping of new ideas, and thereby ensuring a sharing of new ideas and the creation of a team spirit.

Frequent workshops of small groups around specific topics or problems is a good way to build peoples' understanding and mutual respect, and to build consensus. They can be used to develop and validate specific job descriptions, performance criteria, work plans, etc. Through various methods of group work led by professionals, workshops are an effective means of overcoming divisions and misunderstandings.

Performance incentives and accountability. Throughout this paper the importance of planning and performance monitoring and evaluation have been emphasized. It is recommended that the agencies think in terms of longer term plans, say five years, and annual plans keyed to the longer term plans. These should state specific goals and objectives, resources available, and specify who will be responsible for what. These plans should be developed through a participatory process, not imposed from above. Management would then monitor performance, and intervene where problems arise. This is no more than what is called Management by Objectives, MBO.

But to be successful, incentives for achieving a high level of performance, and accountability for one's performance are also necessary. Salaries and benefits ought to be commensurate with responsibilities and should vary with performance, but increasing salaries is difficult to achieve in the short run given minimal resources. But it is possible, with good leadership, to develop some non-monetary incentives that would be appropriate within a public service organization. Possibilities include public recognition of high levels of performance by establishing a system of annual rewards for various units for the best performance in such tasks as turnover or improvements in irrigation efficiency or cropping intensity, and individual awards for innovative ideas, or high levels of achievement in their work. Encouragement of friendly competition among units of the organization could be very effective. Similarly, opportunities for special training or special trips can be used as incentives for high performance of staff. Finally, building morale and shared values through a participatory approach will help people feel the importance of their work, another important type of incentive for high performance.

Accountability is a part of an effective performance monitoring and evaluation programme, in which people are held to be responsible for their work.

Professional assistance. A large body of expertise has now been developed in methods of understanding and assisting organizational change. Many of the concepts and methods are applicable to irrigation management organizations, and to various cultural settings including Sri Lanka. It is suggested that given the ambitious nature of the changes contemplated, and the complexity of planning and implementing such a programme effectively, the agencies should obtain outside professional assistance. "Outside" does not necessarily mean "expatriate"; much of the required expertise may be available in the country. Some expatriate assistance may be required especially in the early stages, but this should be aimed at building Sri Lankan expertise that would be available for the long term. Three basic kinds of skills are suggested.

It was noted in the introduction that the lack of research on the internal management processes of the ID and IMD is a serious weakness in proposing change. Objective observation and analysis through various social science methodologies, many of them developed for assisting organizational change processes are available and should be used as

a source of insights and data to be used for planning, implementing, and monitoring the results of change.

A second type of expertise may be called "management consultants": people who are specialized in assisting agencies to analyze their management problems, and plan and implement changes. Even seemingly "simple" tasks such as preparing job descriptions, or designing communication systems, can be done more effectively if the process is assisted by specialists.

A third type of expertise is training methods and workshop facilitation. There are a large number of specialized techniques useful for improving the techniques of training, particularly making training programmes more effective for adults, and for assisting people to surface, analyze, understand, and overcome hidden assumptions, tensions, fears, etc that inhibit a change process. These types of expertise should be used to assist in implementing the long term change process proposed in this paper.

6.3. Conclusion

Success requires bringing about changes at a multiplicity of levels: policy, head office, range and district, irrigation scheme, field, and individual. It is a complex process, that must be considered as a long-term programme. The transformation and reorientation of the irrigation management agencies is part of the "package" of changes required to achieve the long term participatory management policy vision. Investing in organizational development and human resource development may be considered as creating "social capital" which is a pre-requisite for long-term sustainable success. This paper has outlined an approach to achieving this. Much more needs to be done to work out the implementation.

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List of Consultative Panel Members

Irrigation Department

Mr K Yoganathan, Director
Mr D W R M Weerakoon, Senior Deputy Director
Mr S Senthinathan, Deputy Director
Mr K W Perera, Deputy Director

Irrigation Management Division

Mr D M Ariyaratne, Director
Mr A Gunasekera, Deputy Director

Others

Mr T H Karunatilake, Coordinator, Institutional Strengthening Project
Mr Joe Alwis, Secretary to Project Minister for Coconut Industries
Mr I K Weerawardena, Consultant

IMPSA/SLFO

Mr Nihal Fernando, IMPSA Secretariat
Mr N G R de Silva, Director, IMPSA Secretariat
Mr D Merrey, Head SLFO/IIMI

Observers

Mr M H S Dayaratne, IIMI Research Associate
Mr K Hemakeerthi, IIMI Research Officer