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Ministry of Irrigation, Power and Energy

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TA 1705 SRI

**Monitoring and Evaluation of the Participatory Irrigation System
Management Policy**

Executive Summary

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The International Irrigation Management Institute (IIMI), in collaboration with the Hector Kobbekaduwa Agrarian Research and Training Institute (ARTI) and the Ministry of Irrigation, Power and Energy of the Government of Sri Lanka, carried out a detailed study to monitor and evaluate the actual implementation and results of the participatory irrigation system management policy. The study was supported by the Asian Development Bank (TA 1705 SRI), as well as IIMI. Although the work was completed by 1995 and the draft three-volume report issued at that time, it has taken considerable extra time to finalize the report and its recommendations. Some of the reasons for this were beyond IIMI's control.

The final report has been produced and given limited circulation in Sri Lanka. That report combines three volumes into one single volume of more than 300 pages. It is highly detailed, and most useful to researchers and implementors of the policy itself. Therefore, we felt it would be more economical, and facilitate wider dissemination of the main results, if the executive summary is also distributed separately.

Volume 1 of the study contains a Foreword by the Secretary, Ministry of Irrigation, Power and Energy, the same Executive Summary as is found here, and the main findings of the study. Volume 2 contains further details on the progress and impacts of the participatory irrigation system management policy, while volume 3 deals with systems for monitoring and evaluation of the policy. As mentioned, these three volumes are bound together into a single document. The Study covered 199 major and medium sized schemes under three programs: INMAS (Irrigation Management Division and Irrigation Department), MANIS (Irrigation Department), and the Mahaweli Authority. There are numerous observations, conclusions, and recommendations contained in the study report, supported by a large amount of data.

Although many people contributed to the completion of this study, I would like to commend the Leader of the Study, Dr. Jeff Brewer, for bringing it to a successful conclusion. Dr. Brewer completed the final corrections to the report after having moved to Turkey, where is he the Leader of a new IIMI national program. I also wish to thank our colleagues at ARTI, in the Ministry of Irrigation, Power and Energy and in the various collaborating departments, and the farmers themselves who supported the implementation of the study.

We hope the results of the study will make a useful contribution to the further strengthening of Sri Lanka's participatory water management policies.

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MONITORING AND EVALUATION OF THE PARTICIPATORY IRRIGATION SYSTEM MANAGEMENT POLICY, SRI LANKA

EXECUTIVE SUMMARY

This paper summarizes the findings of the IIMI/ARTI study entitled *Monitoring and Evaluation of the Participatory Irrigation System Management Policy*. The study was supported by TA No. 1705 SRI from the Asian Development Bank and was carried out with the collaboration of the Ministry of Irrigation, Energy, and Power. The study focused on the 199 major and medium schemes included in the INMAS, Mahaweli, and MANIS programs. The full report is available from IIMI. Because the study was completed by early 1995, the findings refer largely to the period 1993-1994. Nevertheless, they remain valid in 1997-1998.

The findings on the progress and evaluation of the participatory management policy can be summarized as follows:

Farmer Organizations

- Distributary channel farmer organizations or their equivalents have been created in about 85% of all schemes under the three programs. The number of farmer organizations varies from over 200 in some Mahaweli schemes down to 1 for many MANIS schemes. The areas covered and numbers of members vary greatly. System level farmer organizations have been formed in most INMAS schemes but are still too new to evaluate.
- Farmer organizations (FOs) show generally good water distribution performance. Overall, participatory management has improved water distribution significantly although it has not eliminated all problems.
- Farmer organization maintenance performance is more equivocal. Most do a reasonably good job on jungle clearing and desilting; generally they do not undertake other maintenance activities.
- A significant minority of FOs in INMAS (45%) and Mahaweli (22%) schemes are involved in business activities, most commonly selling fertilizers and agro-chemicals. Generally they perform well but still depend upon government assistance.
- Farmer organizational strength is a measure of the ability of the organization to sustain itself. FOs vary widely in organizational strength in all three programs. The strongest FOs are found in INMAS schemes. Organizational strength is only partially related to FO performance in particular tasks; leadership can substitute for good organization. However, dependence upon leadership alone threatens the long term sustainability of the FO.

- Most farmer organizations are organized on the INMAS model, with field channel groups, etc. However, within MANIS schemes a majority use a nonhydrological basis for the groups. The study also found that there are three important types of MANIS schemes for which the INMAS organizational model is not appropriate. There is a need to find more appropriate organizational models for these categories of schemes.
- Land tenure was found to be an important factor in the willingness of farmers to support FOs; many short term lessees and encroachers are not willing to work with the FOs. Other factors, such as caste and other social divisions were not found to be important. Outside interventions in FO activities, while destructive when they occurred, were found to be uncommon.
- Legal recognition of FOs is not strongly related to FO performance; recognition by the relevant government agencies is more important.
- Agency support for FOs is strongly related to organizational strength and less strongly related to FO performance. However, it is important to note that FOs have been created by farmers in response to the government rather than spontaneously. Agency support is thus necessary.

Joint Management Committees (JMCs)

- Overall, about 51% of the schemes in the three programs have some form of joint management committee structure. These include all INMAS and Mahaweli schemes. Strong emphasis was given in the INMAS and Mahaweli programs to the JMCs, but the emphasis in the MANIS program has been much less.
- JMCs serve two major functions: seasonal planning and problem solving. JMCs generally can make decisions, but follow-up has not been good in all cases. JMC seasonal planning performance has been mixed in part because JMCs have been excluded from seasonal planning in some schemes. Because of agency limitations, JMC performance in problem solving has also been mixed.
- Because of the emphasis given by the agencies, performance varies among programs. Mahaweli JMCs seem to perform the best because of the strong support given by the MEA.

Turnover

- Turnover of irrigation management responsibilities is not a single phenomenon; there are many variations. The most common responsibilities turned over include maintenance (jungle clearing and desilting only) of distributary channels, water distribution on the distributary channel and below, and operation of the distributary channel head gate. Virtually all INMAS FOs report some turnover, most including the first two responsibilities and a significant number (43%) including the third as well. The great majority of Mahaweli FOs report taking some or all of

these responsibilities. Turnover has occurred in a minority of MANIS schemes. We found cases where FOs had taken responsibility for main systems operations and maintenance as well.

- Turnover of water distribution is not problematic and has helped improve water distribution.
- Turnover of maintenance responsibilities is not complete in any scheme. Virtually no FO is held responsible for the regular maintenance and repair of concrete and masonry structures. Also, the agencies continue to provide FOs with funds for maintenance through maintenance contracts. This should be called "joint management" rather than "turnover." MEA (and the ISMP before it) explicitly define a turnover process that includes a period of "joint management."
- It is our opinion that FOs handle maintenance responsibilities about as well as the irrigation agencies. Moreover, it appears that, unless the profitability of paddy farming gets significantly worse, farmers can afford to pay the full costs of periodic maintenance of field channels and distributary channels.
- Some farmers, because of the costs, and some irrigation agency officers, for other reasons, oppose complete turnover of maintenance responsibilities. The government must decide whether it wishes to subsidize irrigated farmers by paying some of the maintenance costs.
- There is a need to consider and plan for some of the consequences of full turnover if the decision to go ahead is made. The most important consideration is planning to repair systems before complete turnover.

Impacts of Participatory Management

- The study found no evidence of improved crop production from participatory management in the short term. Yields have not increased significantly and evidence on area irrigated is unclear. In both cases, it appears that other factors are more important than participatory management. Since participatory management has resulted in an improvement in water distribution, it has lowered the risks of irrigated agriculture, thus improving long term productivity.
- Profitability of irrigated agriculture may have increased to a small extent because some actions of FOs have lowered costs of production. However, profitability appears to be affected far more strongly by factors other than participatory management.
- In real terms government O&M expenditures have decreased over the past several years except in Mahaweli systems where there has been a small increase. However, this decrease has been the product of Treasury limitations rather than participatory management. However, due to participatory management, there appears to have been a small shift from expenditures on distributary channels and below to expenditures on the main system. This should improve the long term sustainability of the systems.

- Under participatory management, water distribution has improved and maintenance appears to be as adequate as before. Since this is being accomplished at lower costs to the government, participatory management appears to make government funds more effective. That is, more is being accomplished at lower cost to the government.

Sustainability: Benefits and Costs

- The major benefits of participatory management to farmers have been a) improving water distribution, and b) giving farmers more influence over government agencies providing agricultural services, particularly irrigation services. The major cost is the burden that falls on the Farmer Representatives. Although a simpler alternative organization of farmers for irrigation management can be conceived that would cost the farmers less, it also would provide less potential and actual benefits and is not recommended. There is a need to a) make government agencies more responsive to FOs and JMCs, b) support FOs in money-making businesses to increase the benefits, c) find a way to lessen the burden on Farmer Representatives or to compensate them for their effort, and d) have government agencies support the FOs in disciplining their members.
- The primary benefit of participatory management for irrigation agency officers is improved relations with farmers and a more pleasant working environment. The primary cost is reduced power and influence over farmers. To motivate officers, they should perceive that they will be rewarded with good evaluations by their superiors if the FOs and JMCs work well.

Conclusion and Recommendations

The major conclusion is that, despite its failure to achieve some of the main goals, participatory management has clear benefits and should be continued and supported. Also, basing participatory management on formal multifunctional farmer organizations and joint management committees should be continued.

Following modifications made at a Workshop held to discuss the conclusions of this study, the specific recommendations made to strengthen the policy are:

Recommendation No. 1

The IIMI/ARTI team recommends that steps to be taken to make government agencies dealing with agriculture more responsive and more supportive of farmer organizations and joint management committees. These steps should include:

- **Within each agency, the agency should redefine the job descriptions of officers to reflect the tasks and attitudes needed to provide explicit support for farmer organizations and joint management committees. This redefinition should make certain activities mandatory, including attendance at JMC meetings and providing technical assistance**

and advice to FOs and JMCs. Reference should be made to the job redefinitions proposed by the Institutional Strengthening Project for the Irrigation Department and to those proposed specifically for Uda Walawe under the Irrigation Management and Crop Diversification Technical Assistance. In particular, the job descriptions of Technical Assistants/Project Managers in MANIS schemes should be redefined to ensure that the TA/PMs have the time and motivation to play their roles as Project Managers effectively.

- **(Workshop) An inter-agency committee should be set up to redefine job descriptions and qualifications for staff recruitment.**
- **Intensive training should be provided to government officers in all relevant agencies about their roles and functions with respect to farmer organizations and joint management committees and about the rights and responsibilities of the FOs and JMCs.**
- **In order to ensure that officers act in supportive ways, their performance in supporting farmer organizations and joint management committees should be made an explicit part of their performance evaluations.**
- **The government should make it a policy to support farmer organization and JMC decisions. This may mean delegating greater authority to local agencies so that they can respond effectively to JMC decisions. It also means that government officers should support farmer organization decisions against complaints from individual members.**
- **(Workshop) The Secretaries of Irrigation and Agriculture should issue a joint declaration of the participatory management policy. The policy should be widely publicized through various media. The Central Coordinating Committee for Irrigation Management should be responsible for planning this effort.**
- **A major effort should be made to publicize among the farmers the rights and responsibilities of farmer organizations and joint management committees as defined in by-laws to the amended Agrarian Services Act and in the amended Irrigation Ordinance.**
- **(Workshop) Farmers should be consulted about any future amendments to the relevant legal acts.**
- **(Workshop) Regular monitoring and evaluation of the progress of the policy should be undertaken, perhaps by the Hector Kobbekaduwa Agrarian Research and Training Institute. An annual workshop should be held to review the performance of the irrigation management policy activities.**

Recommendation Number 2

We recommend that catalyst efforts, farmer training, and other direct support activities for FOs and JMCs be continued. These efforts are needed for the following:

- **Catalyst efforts are needed to facilitate the organization of farmers in schemes where no farmer organizations exist. Catalysts are also needed to assist agencies and farmer representatives in the creation of joint management committees in schemes where they do not exist.**
- **Catalyst efforts, training, and publicity should focus on educating all farmers, not just farmer organization leaders, about participatory management. Specific efforts should be made to educate farmers about organizational management, including handling finances, selecting leaders, etc.**
- **(Workshop) Training should be provided to the farmers at the appropriate time on the functions and responsibilities of the farmer organization during each stage (initial, joint management, and turnover) of farmer organizational development.**
- **(Workshop) When needs arise, farmer organizations should be encouraged to hire trained persons (e.g. bookkeepers, auditors) to carry out specific organizational management tasks.**
- **Widespread training about technical aspects of irrigation should be continued.**
- **(Workshop) The relevant government agencies should make technical information on the irrigation schemes available to the farmer organizations.**
- **Where special problems exist, e.g. land tenure problems, support efforts should focus on finding solutions to those problems.**
- **Special efforts should be made to offer opportunities to farmer organizations to take up new businesses. One business that should be fully supported by the government agencies is paddy marketing. Government agencies should assist in establishing linkages to other relevant markets.**
- **Efforts should be made to prevent development of dependency of the farmers on the catalyst agents as has been reported from some INMAS schemes. This can be done by constant monitoring of catalyst activities; catalysts should not provide direct services but only instruction, advice, and guidance. Catalyst assistance should be time-bound.**
- **(Workshop) Efforts should be made to mobilize other community members, such as teachers, grama niladhari, and religious leaders in support of participatory management.**

Recommendation Number 3

We recommend that alternative organizational forms be developed for the various types of schemes for which the INMAS model is not appropriate.

- **(Workshop)** Farmer organizations should be organized on the basis of hydrological units whenever possible.

Recommendation Number 4

We recommend that the government clarify the policy on turnover, including defining what powers and responsibilities will be turned over and how the government will continue to support irrigation services. We suggest that the following should be part of this clarification:

- **Turnover should be publicly declared to be a fixed policy that applies to all FOs in all schemes. If necessary, it can be explained that this is an alternative to imposing the irrigation service fee mandated by law.**
- **(Workshop)** To ensure an effective and united policy, both agriculture and irrigation should be placed under one ministry. Alternatively, the policy can be implemented and supervised by a unified secretariat under a board drawn from both ministries. These measures will ensure a unified policy.
- **(Workshop)** Funding for farmer organization and turnover activities should be provided on a program basis to deal with the whole sector rather than on a project basis that deals with only a few schemes at a time.
- **(Workshop)** For turnover, farmer organizations must be formally recognized by the government; for this many farmer organizations need to be strengthened.
- **(Workshop)** The irrigation agency personnel in a turned over scheme will be answerable to the Project Management Committee for that scheme.
- **Operations of distributary channels and below, or equivalent portions of systems without distributary channels, should be turned over to farmer organizations as soon as the channels are repaired to make them operable.**
- **Operations of distributary channel head gates, branch channels, main channels and headworks should be turned over to appropriate level farmer organizations or joint management committees upon the request of the farmer organizations or joint management committees with the proviso that the farmer organizations or joint management committees take full responsibility for hiring, paying, and supervising the necessary operating personnel. The exact details can be negotiated following a request from the relevant group of farmers to the Project Management Committee in each scheme.**

- **(Workshop) For operation of distributary channel headgates, it is suggested that they be jointly operated for a period of less than five years, following which operations should be handed over to farmer organizations.**
- **(Workshop) Farmer organizations should be made responsible for the safety of structures and protecting reservations from encroachments and damage.**
- **Jungle clearing and regular desilting of distributary channels and field channels or their equivalents should be made the unambiguous sole responsibility of farmer organizations; no funds should be provided to farmers for this activity.**
- **The government should come to a decision about how much it is willing to subsidize other aspects of distributary channel and field channel maintenance, including painting and greasing of metal controls, major and minor earthworks such as the repairs of scours and washouts, and repair of concrete and masonry structures.**
- **(Workshop) Once the basic decision about the obligations of farmer organizations and government are worked out at national level, specific subsidies and subsidy levels should be worked out at scheme level based on an assessment of needs. These subsidies can include salaries, equipment, operation funds, and others.**
- **The mechanism for providing subsidies should be defined. There are several alternatives ranging from giving the irrigation agency full responsibility and the necessary funds to making the FOs responsible but giving them a simple annual cash grant.**
- **The government should define a period of time by the end of which the transfer of responsibilities must be accomplished. No more than five years following completion of needed repairs should be needed to complete the transfer. During this period, a time of "joint management" should be defined during which the agency officers supervise and assist the farmer organizations in undertaking their responsibilities.**

Suggestions for Monitoring the Policy in the Future

As part of the study, the IIMI/ARTI team documented the monitoring and evaluation systems being used by the implementing agencies, interviewed managers about their information needs, developed indicators of key characteristics of farmer organization and joint management committee performance, and tested these in the field in an experiment in improved monitoring.

At present, the Irrigation Management Division uses the Monitoring, Evaluation and Feedback (ME&F) System. A major problem is that many FO office-bearers do not prepare the required monthly reports. The ME&F system has now been introduced in 19 INMAS schemes but data reports are actually being produced only in 10 schemes. Until recently, the Irrigation Department

had no regular monitoring of participatory management. Now, various formal and informal initiatives are under way, the most important of which may be the establishment of Irrigation Management Cells (IMACs) in each range office; one of whose functions is monitoring institutional development activities. MEA's Institutional Development Unit (IDU) collects data and reports on various aspects of participatory management. In late 1994, the MASL's Planning and Monitoring Unit began studies with a pilot survey of the strengths and performance of farmer organizations in two Mahaweli schemes.

Based on discussions with managers in charge of institutional development programs, the ARTI/IIMI team concluded that the major weakness that now exists is the lack of good measures for FO status and FO performance that allow quantification and comparison among FOs, schemes, programs, etc.

To help provide quantifiable measures for the purpose of monitoring and evaluating participatory management, the IIMI/ARTI team developed and tested a set of indicators for

- Farmer Organization Strength
- FO Water Distribution Performance
- FO Maintenance Performance
- FO Performance in Non Irrigation Management Activities
- Joint Management Committee Performance

These are given in Annex A of Volume III. Properly used, the indicators provide a reasonably accurate way to measure FO and JMC progress. To provide an objective way to evaluate the strength and performance of FOs before considering them for turnover, the team suggested a first approximation of minimum acceptable percentage scores for turnover. These numbers can be refined over time as more experience is gained in rating FOs and JMCs.

IIMI discussed with the agencies the possibility of assisting the agencies in improving their M&E systems. Only the Irrigation Department showed interest and worked together with IIMI to devise an M&E system that may be useful for MANIS schemes. This system was tested at Kaltota scheme in October 1994. The work required simple modifications of the indicators and development of a simple and easy to implement plan for carrying out the monitoring. Such modifications and plan are described in detail in Volume III of the full report. The methodology developed seems to avoid present problems with IMD's ME&F system and yet provides accurate data on progress of FOs.

To monitor progress in a large number of schemes, the team considered a number of methods and suggested that a modified version of the recurrent surveys carried out for the study itself would work well. For this purpose, a specialized research institute such as ARTI should be used.

The following thus is recommended:

We strongly believe that the government should have an effective way of keeping track of the progress of FOs, JMCs and turnover. Based on these experiences and findings, we recommend:

- 1. That the IMD modify the ME&F system to solve the problem of dependence on IOs for monthly reports. Specifically, the IMD should reconsider the idea that FOs will be interested in collecting data for themselves and for the IMD. The lessons from the Kaltota experiment may be useful.**
- 2. That the MEA install its monitoring and evaluation system as soon as possible. The indicators may be helpful in this regard.**
- 3. That the Irrigation Department develop a recurrent survey-type monitoring program for MANIS schemes based in the IMACs.**