

Concept, Procedure and Strategy of Participatory Management Program for Large Irrigation Projects under ILC Financing Western Regional Irrigation Directorate

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1. Introduction/Background

Over the years, the Department of Irrigation (DOI) has constructed, operated, and maintained many large scale irrigation projects [systems covering command areas larger than 500 ha in the hills and 5000 ha in Terai]². Continuation of this practice has, however, raised some concerns such as appropriate mobilization of scarce financial resources, records of unsatisfactory project performance, and the indifferent behavior toward the completed projects from the beneficiary farmers, the target group.

The DOI/HMG has formed a policy to share O&M responsibilities between the Agency (DOI) and a legitimate organization of beneficiaries for the large scale irrigation schemes in the hills and in Terai (systems having more than 2000 ha). In such schemes the beneficiary farmers will be a responsible counterpart to the public irrigation agency. They will be organized to take control of certain parts or sectors of the irrigation system for operation and maintenance, and aid in system decision making.

An Action Plan for a Participatory Management Program of large irrigation schemes in the country has been prepared. In May 1989, a team called the Core Group (a subcommittee of the Task Force)³, was formed under the Chairmanship of the Secretary of Water Resources. The Development Credit Agreement between the HMG and IDA (WB) for Bhairahwa Lumbini Groundwater Project III has laid provisions, under Irrigation Line of Credit (ILC) component, to review the Action Plan for a Participatory Management Program, prepare pilot projects, make plans and time tables, and start implementation.

The M&E (cons) Division of the Western Regional Irrigation Directorate (WRID) has prepared selection procedures, including strategies and implementation processes for potential large irrigation projects that can be brought under a participatory management program. This paper describes the concept, procedure, and strategy for participatory management. Preparation has been based on the guidelines of the Action Plan and assumptions made are based on the experiences and lessons learnt in implementation of assistance to Farmer Managed Irrigation Systems (FMIS) under ILC financing. This

1 Divisional Engineer, CRID/DOI.

2 Working Policy on Irrigation Development, 1988.

3 A 'Task force on Cost Recovery of Irrigation Projects' was formed under the chairmanship of the then Acting Secretary, Ministry of Water Resources. The Task Force presented a policy paper called General Irrigation Management Policy Framework in relation to O&M Cost Recovery. A ministerial decision followed and a Core Group was formed composed of a DDG from DOI, an Executive Director (Legal Affairs) from WECS, Project Manager of Planning and Design Strengthening Project, DOI and Consultant, IMP. The Core Group presented two Action Plans one each for Turn Over and Participatory Management Program in May 1989. HMG/N approved these Action Plans in the following month.

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paper introduces a planned approach to bring large irrigation projects in the western region under participatory management.

1.1 Objectives

The objectives for bringing large projects into a participatory management program are to reduce the financial pressure on DOI/HMG in irrigation development activities, particularly in operation and maintenance phases. Also, to help enhance the performance of the system by involving beneficiary farmers in managing the system. This will help national initiatives toward achieving increased agricultural production by making the completed large irrigation projects more effective.

1.2 Driving Facts

The basic reasons for the DOI/HMG interest in participatory management of large irrigation systems are as follows:

- a) The Governments limited personnel and financial resources forces a reduction in its involvement as well as budget allocation for operation and maintenance of completed DOI irrigation projects.
- b) Government involvement has not improved the performance of the irrigation projects. If the beneficiary farmers assume full O&M responsibilities of certain parts of the system, the systems performance as a whole would improve.
- c) If Agency involvement in O&M responsibilities can be reduced, the DOI could utilize its limited resources on new potential project areas that might prove more productive.
- d) Without the involvement of the beneficiaries, the Department cannot maintain the large irrigation schemes that they build.

1.3 Assumptions Made in Preparing Procedures

The WRID has not implemented any DOI irrigation projects for participatory management. The present set of concepts, procedures, and implementation methods are, therefore, based on assumptions which test various approaches toward beneficiary farmers participation in irrigation development. These procedures are backed by two and half years of experience in ILC implementation. The assumptions are:

- a) Farmers can operate, maintain, and manage the system below the branches or tertiaries as determined by joint agreement. Without financial backing, they cannot carry out the major Essential Structural Improvement (ESI) works required to make the DOI's large irrigation projects functional.
- b) An approach of farmer participation is applicable in all stages of implementation and operation and maintenance.
- c) If the project system is divided into sectors, and ESI works and water delivery are preceded by joint agreements and followed by timely completion, the

water user associations will be encouraged to assume the O&M responsibilities for their sectors.

2. Procedure for Selection of Pilot Participatory Management Irrigation Projects

Potential DOI projects are selected for a participatory management program by following procedures.

2.1 Preliminary Prioritization Based on Office Records

The project offices are advised by the WRID to prepare a synopsis of the projects, including important features available in the office records. After having received the reports from different project offices, the WRID will make a preliminary prioritization, if necessary, and notify the project offices and/or the concerned District Irrigation Office (DIO) to carry out a Rapid Appraisal of the prioritized projects.

2.2 Rapid Appraisal and Status Report

In order to assist the rapid appraisal process, a status report format has been developed to collect information. The format covers most aspects of the type of first hand information to be collected in questionnaires and tabular form.

This stage is of vital importance to the procedure. The following steps must be taken.

- a) Divide the project system into preliminary sectors with a specific rationale, such as village settlements.
- b) Notify different communities within the project area about the occurrence of a mass meeting to be held with project officials for rapid appraisal.
- c) Explain the objectives and reasons for introducing a participatory management program in the project.
- d) Make joint assessments of actual needs, such as for ESI works, problems likely to be encountered, and for the type of conditions needed for a smooth transition toward participatory management.
- e) Explain the program implementation process to the beneficiary farmers. The official project team should collect relevant and necessary information, in cooperation and consultation with innovative farmers and interest groups, from all parts of the command area.

Once completed and forwarded to the WRID, the status reports will represent the situation of those projects.

2.3 Final Prioritization and Selection

The WRID will make the final prioritization and selection using their weighted criteria⁴. The WRID will make sure that the prioritized projects are formally approved. The concerned project offices will be notified of the selection decision and advised to develop a program for implementation.

⁴ *In addition to the operation procedures and implementation process, the WRID has developed the Status Report format and a set of weighted criteria for prioritization and selection.*

2.4 Program Development for Implementation:

Selected projects will develop an implementation program using ILC guidelines. The program should indicate the amount of time and resources required for each implementation stage. A flow chart should be used to outline program stages and activities.

Work plans requiring two to three years of completion will constitute the annual participatory management program for WRID. The budget will be proposed accordingly.

3. Implementation Process

The implementation process should be illustrated using a flow chart and should consist of the following stages:

a) Sector establishment

The project system is divided into suitable sectors, depending on the definition provided by the Action Plan and by the beneficiary farmers. These divisions will provide the areas of jurisdiction and responsibility for sector level WUAs, a system level WUA coordination committee, and the irrigation agency.

b) Farmer organization and registration

Once the sectors are established, the sector level WUAs are formed and a system level WUA coordination committee is also formed to coordinate the activities that are beyond the jurisdiction of the individual WUA committees. The project will assist the beneficiaries in organizing and registering their organization. Such sector WUAs may comprise various sub-sector WUAs or outlet groups as necessitated by the needs of the system.

c) General agreements between the project (DOI) and sector level WUAs

The project office and sector level WUAs should enter into a written agreement on roles, responsibilities, and commitments of both parties for different stages of project implementation. Also, an agreement needs to be made between the Agency and the system level WUA Co-ordination committee regarding responsibilities for system level activities.

d) Joint assessment of users needs

The project authority and the sector level WUA members will walk through the project and jointly assess ESI works and other necessary supports to be carried out in order to provide a smooth transition to joint management of the project. Joint assessment and the agreement should guide both the parties to assume their respectively committed O&M responsibilities in their area of jurisdiction.

e) Detail engineering preparation

The next step details engineering and environmental studies within the scope of essential structural improvements in the project. The detail design and cost estimates are made considering the aspects of appropriate design and low cost technology.

The necessary steps in this section are:

- i) Design and cost estimates are prepared with the consultation of the sector level WUA members.
- ii) Appropriate design and low cost technology should be given preference.
- iii) Approval of the design and drawings must be given by MIT/WRID before finalizing the design and approving a cost estimate.
- iv) An agreement is made on cost sharing between the two parties as per the Irrigation Policy 1988. Such an agreement should clearly spell out the type of works and time bound responsibilities for both the WUA and the project for implementing the ESI works.

The final designs, drawings, and cost estimates are forwarded to WRID together with the work plans developed for the full implementation. The WRID will review the program and budget proposals in order to arrange for required resource allocation.

f) **Mobilization of resources and working agencies**

Tendering will be done by the agency to get qualified and competitive contractors bidding on the agencies share of ESI works. Tender operation and contractor selection will be done as per the financial regulation and in presence of minimum of two representatives of the sector level WUA.

The project office will assist the WUA in mobilizing its resources, like labor and other locally available construction materials, for the WUA's share of ESI works.

g) **Joint supervision committee for the contractors works**

Both WUA and the project will form a joint supervision committee that will supervise daily activities to ensure quality and timely completion of the ESI works.

A member from the executive body of the sector level WUA will chair the supervision committee with representatives from the nearby areas as members.

h) **Completion and rectification of ESI works**

Upon completion, the contractor will apply for a completion certificate and final payment. Rectification will be indicated by a walk through made by the members of the WUA, WUA coordination committee, and the project officials.

Any incomplete works within the contract should be made complete by the contractor on its own cost. Any work outside the contract will require fresh negotiation and sharing of responsibilities. The corrective works should be completed within a maximum of six months or a period agreeable to both parties, whichever is the shortest. Should any dispute arise in the process, the decision of WRID/DOI will be binding and final.

i) **Training for WUA members**

While implementation of ESI works is in progress, the members of sector level WUAs are given training by the Agency on participatory management systems, its roles, responsibilities, and scope of the Agency itself. One of the objectives of such training would be to help WUAs internalize the O&M activities for the sectors at their disposal.

j) **Gradual assumption of sectoral O&M by WUA and its monitoring**

The sector level WUAs will assume O&M of their sectors with the project monitoring their performance for one year after completion of ESI works. During this year the project will provide the necessary assistance to the WUA coordination committee and sector level WUAs and jointly assess when O&M responsibilities can be fully transferred to the sector level WUAs.

k) **Assumption of full sectoral O&M by the sector level WUAs**

After the joint evaluation of the WUAs performance is made, full operation and maintenance responsibilities shall be formally transferred to the sector level WUAs with the WUA coordination committee remaining in tact. A second stage agreement may be reached at this stage comprising the following:

- i) Formal assumption of O&M responsibilities of the sector by sector level WUA committee,
- ii) Water fee collection and utilization of such funds for the O&M of the sector and
- iii) Continuation of DOI assistance in accidental cases in the form of technical advice whenever needed, and in monitoring.

4. Strategy

A strategy is needed to make the Agency and Association capable of sharing their respective responsibilities in operation and maintenance of the project. It is important that both parties abide by the terms of agreement before, during, and after the implementation process of the participatory management program.

The following are suggested strategies:

a) **Head-on strategy**

Activities that the Agency must perform directly are:

- i) Implement DOI projects that have registered WUAs with outlets, sectors, and coordination committees, ready to share the investment cost in cash and kind, and ready to assume full O&M responsibilities for the respective sectors after construction, and then participate in resolving water distribution conflicts, if any, immaterial of the cause.
- ii) Have beneficiary farmers participate in all stages of implementation from planning to commissioning, so that they are familiarized with the system.
- iii) Improve the system performance by making the system physically operational, and by making water deliveries reliable at branch or tertiary heads.

This is the meeting point of the irrigation agency's prime responsibility and the beneficiary's participation in system management.

- iv) Start promptly followed by steady progress and timely completion. Progress of the implementation process significantly helps in building confidence in the beneficiary farmers toward the Agency.

- v) The Agency should monitor (with documentation) the project activities and developments, starting with implementation until full participatory management is achieved.

b) **Back-up strategy**

The Agency must help the WUAs understand, strengthen, and assume their responsibilities for irrigation system management and resource operation.

5. **Activities**

The Implementation Agency and the Water User Association need to make schedules for additional activities.

a) **Activities for the implementation agency**

- i) Conduct training programs for Agency staff, acquainting them with Agency responsibilities at their area and at the WUAs areas, during and after the implementation of the program.
- ii) Conduct training programs for WUA members and selected groups of beneficiaries to acquaint them with their responsibilities during and after the program implementation.
- iii) Provide the WUA with O&M requirements, collection methods and use of irrigation funds, organization rules, water management, and other issues.
- iv) Monitor all activities and develop a manual based on performing them.

b) **Activities for the water users' association**

- i) Participate actively in training organized by the Agency and discuss their needs and the scope of their contributions.
- ii) Work with the Agency staff by providing actual facts and figures. Participate in joint supervision committees, sector establishment, solving internal water conflicts, and make recommendations for effective operation and maintenance.
- iii) Propose plans and activities to mobilize local resources such as labor, and funds. Form an organization during the implementation and O&M of the project. Get technical assistance from the Agency.

6. **Supports Required**

6.1 **Supervision Agency (Regional Irrigation Directorate)**

- a) Regular supervision and monitoring.
- b) Advice and comments for making the Implementing Agency activities more farmer oriented, and at the same time not overstating the farmers' ambitions and agencies optimism.
- c) Make notes on difficulties that do not follow the set principles of the ILC process (participatory approach).

- d) Play supportive roles between the Implementing Agencies and the policy making Agencies, facilitating prompt decisions and timely progress.

6.2 Policy/Decision Making Agency (DOI)

The DOI will benefit by making prompt decisions so that the scheduled work progress does not get hampered. Use guarded optimism until the objectives are attained.

6.3 Political Commitment

Active participation by local and central leaders in disseminating the national program and objectives to the beneficiaries. Build their confidence and encourage their participation in operation and maintenance.

Political leaders may play key roles in mobilizing resources for program development in their area.

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