

Effective Community Irrigation Associations — Participatory Approaches for Effective Engagement

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Abstract

For over three decades, the National Irrigation Administration (NIA) of the Philippines has promoted participatory approaches to irrigation development and management. However, for a number of reasons these have never been adopted nationally as standard operating procedure. In the past five years under the Southern Philippines Irrigation Sector Project (SPISP), NIA has been taking a new look at its experience and introducing several innovations in its participation programs. The SPISP approach encourages farmers to improve performance of irrigation systems by transferring ownership of systems to them. The underlying principle of the project is to work in partnership with local communities throughout the feasibility, design, construction, and initial operations phases to ensure that communities have full ownership of the new or upgraded facility and can take on the ongoing operation and management of the transferred system. SPISP prepares farmers' organisations (Irrigators' Associations — IAs) to effectively manage their systems and, consequently, increase farm household income and reduce poverty rates in project areas. The Participatory Irrigation Management and Transfer (PIMT) process developed in SPISP is now being implemented in 13 areas of the Southern Philippines. PIMT empowers communities to undertake informed collective decision-making (ICDM) by all potential beneficiaries.

Innovations for PIMT are:

- full transfer of system assets and management to Irrigators' Associations
- a cascading system of small group activities and information transfer to involve all participants/farmers at each step of PIMT and prepare participants for informed collective decision-making
- intensive and extensive beneficiary informed collective decision-making in the full project cycle (feasibility studies, detailed design, construction, and operation)
- a farmer equity contribution to construction (cost sharing) for all irrigation development — farmers can creatively and jointly identify where they can make their own counterpart contribution to development of the system in areas such as the granting of land access, labour, and/or other contributions
- an extended technical assistance and management support until self-reliance of the community and full development of system benefits are realised. The PIMT also works with the community to ensure the social organisation of the IAs are robust and that farmers are trained in the new livelihood opportunities that irrigation will open up for them.

This paper presents the elements of the PIMT process and results currently derived. It should be understood that the sustainability of results will not be substantiated for another several years. However,

preliminary results include PIMT strengths and weaknesses, and reflections on the future of the process within the Philippines.

Keywords

Participatory irrigation management and transfer, participatory approaches, informed collective decision making, irrigation associations, community development

Introduction

Over the last two decades the increasing investment cost of irrigation development, combined with recent fiscal deficits, has encouraged the Government of the Philippines (GOP) to search for participatory approaches that will build partnerships, and share management responsibility for irrigation systems. No longer can developing countries face the cyclical cost of rehabilitating poorly maintained irrigation systems. Instead a process is needed to build community ownership, have communities take responsibility for the maintenance and operation of their systems, and reduce the likelihood of expensive rehabilitation works.

Presently in the Philippines irrigation schemes cover about 1.4 million ha, or 45 per cent of the 3.13 million ha irrigable area. The undeveloped area signifies a considerable potential for expansion of irrigation. However, expansion is not supported because the current systems are operating well below capacity. The operation of existing irrigated areas is constrained by two main problems — management and funding. The management problem is rooted in the fact that half a million ha of the service area cannot be fully served with irrigation water, particularly during the dry season due to:

- Inadequate routine maintenance and system deterioration
- Improper water management due to institutional and technical deficiencies.

The funding problems arise because of major deficits in the National Irrigation Administration's (NIA) budget due to lower-than-target irrigation service fee (ISF) collection and the institutions inability to reduce recurrent staffing costs through major restructuring.

A radical rethinking of the system was needed to reduce government ownership and increase community management and responsibility for the systems.

Southern Philippines Irrigation Sector Project

The Southern Philippines Irrigation Sector Project (SPISP) is run by the Philippines' National Irrigation Administration, with funding support from the Asian Development Bank (ADB) and is at the forefront of promoting the new development thrust.¹ SPISP aims to consolidate and enhance the 'best practices' on participatory irrigation development and management initiated by NIA from the mid 1970s to the late 1990s, and use this as the basis for sector reform.

¹ Hassall and Associates Pty Ltd is an Australian firm who leads a technical consortium that provides advice and assistance to NIA.

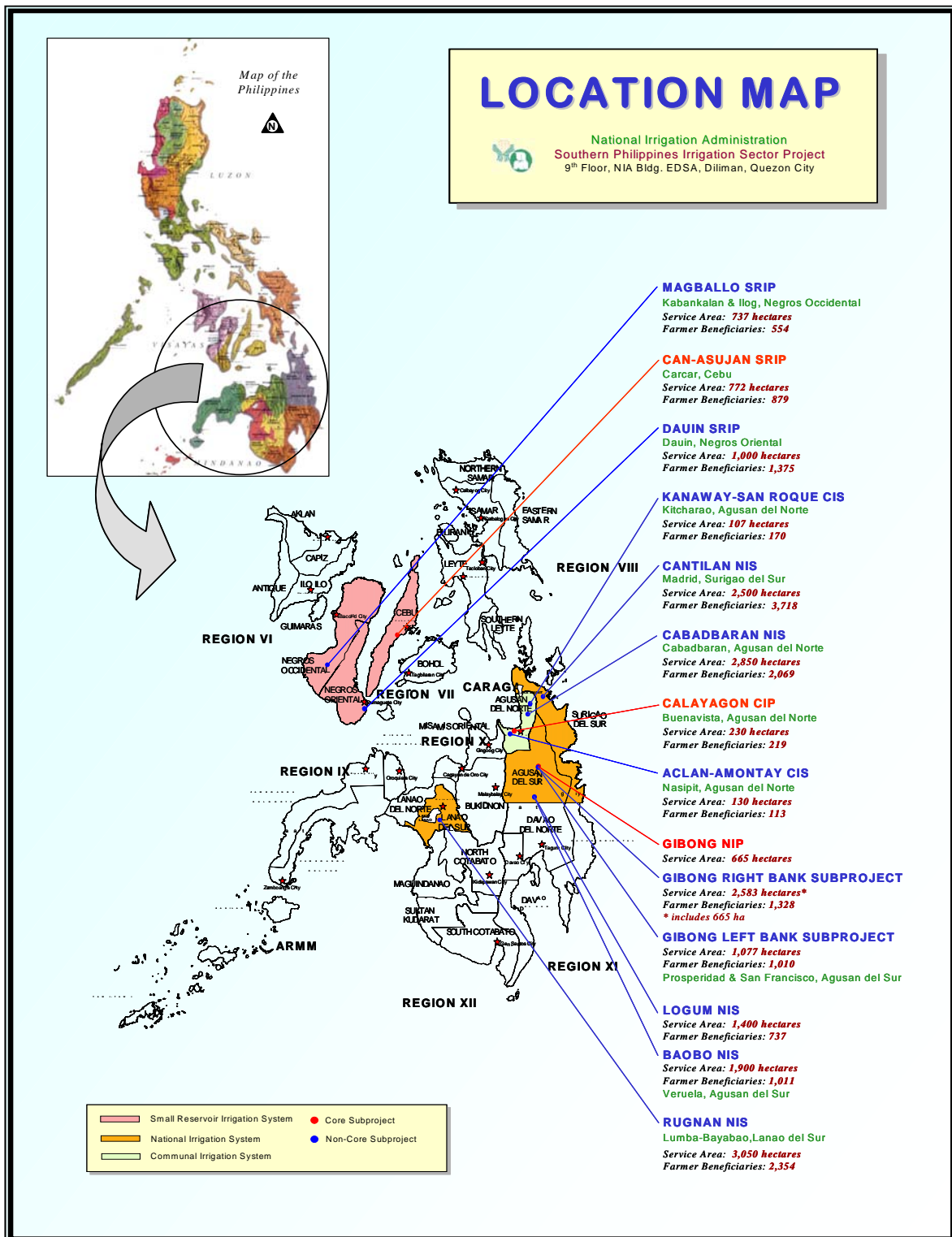


Figure 1. Location of SPISP beneficiary communities in the southern Philippines

SPISP commenced in June 2000 and is presently developing and/or rehabilitating 13 irrigation systems with a total service area of 11,979 ha. Beneficiary communities all lie within the southern Philippines in Regions VI (Negros), VII (Cebu), XIII (CARAGA, Mindanao) and the Autonomous Region of Muslim Mindanao (Figure 1). Of this area, 47 per cent (or 5686 ha) is considered as ‘newly generated area’ and the remaining 53 per cent (6293 ha) is ‘rehabilitated area’ in existing systems. About 9560 farm households are expected to directly benefit from the SPISP.

SPISP has developed, refined and adapted participatory approaches to irrigation management to develop a 'better practice' termed Participatory Irrigation Management and Transfer (PIMT). PIMT is the logical participatory process that builds ownership, increase capability, and integrates communities in all phases of system development (feasibility, design, construction, management and agricultural improvement) (NIA 2005a, 2005b, 2005c, 2005d). It leads to the eventual full transfer of system ownership to the community Irrigation Association. PIMT incorporates the following innovative characteristics:

- A Cascading System of Small Group Activities and Informed Collective Decision-Making — The PIMT approach to IA capacity building emphasises on-the-job training and informed collective decision-making
- Community review and endorsement of the feasibility of each irrigation system before it proceeds
- Participatory planning of terminal irrigation facilities
- Farmer equity contribution — Effective processes for communities to contribute equity to the cost of irrigation systems that builds their commitment and entitles them to ownership and management over completed systems
- Clear documentation through the development of a Participatory Irrigation Management and Transfer Implementation Manual.

Participatory Irrigation Management and Transfer

Participatory Irrigation Management and Transfer (PIMT) under SPISP are conceptually distinct from classical Participatory Irrigation Management (PIM) and Irrigation Management Transfer (IMT) programs. Under PIMT ownership rights in the system are fully handed over to a farmers' organisation. On system implementation, the role of the government irrigation authority shrinks to offering an IA some technical support, perhaps even on a fee-for-service basis. Otherwise, after a three-year apprenticeship under NIA tutelage, the IA is fully responsible for managing and sustaining its irrigation facilities. Under the PIM and IMT approaches, a government irrigation authority simply decentralises control over irrigation and enlists farmer participation in O&M to varying degrees but retains ultimate legal ownership and authority over the system.

PIMT is, in effect, championing a change in NIA emphasis. Rather than transfer of costs and responsibilities, PIMT promotes transfer of benefits and the authority of ownership.

Figure 2 is a schematic illustration of the PIMT process under SPISP. It shows a process broken down into four phases that will take about six years to complete.

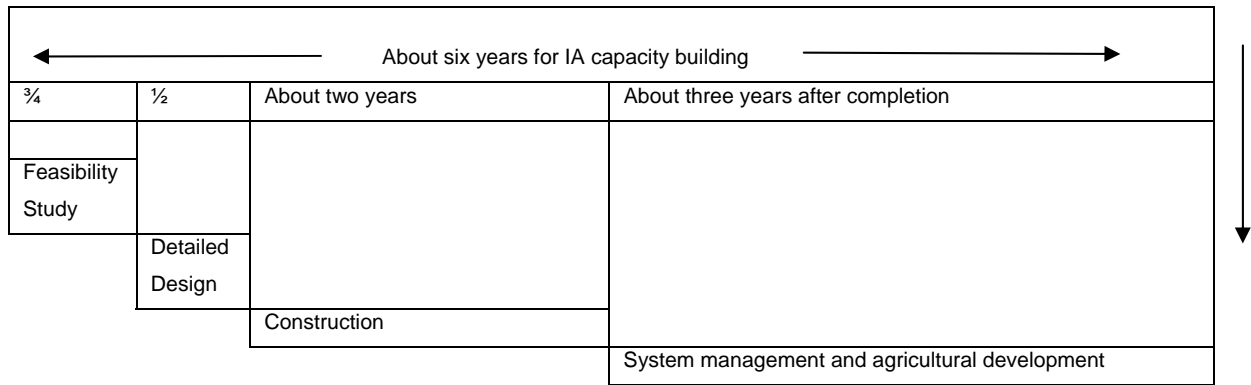


Figure 2: The PIMT process leading to full system transfer

The Feasibility Study Phase begins with a Community Entry and Orientation activity, which presents the proposed subproject to the target community. PIMT stresses the importance of enlisting participation of the mass of stakeholders from the outset. As an example the participatory tools used during the Feasibility Study Phase are shown in Table 1. Organisational efforts of the Feasibility Study Phase thus focus on the field or turnout service area level. The main output of the Feasibility Study Phase is a body of Turnout Service Area Groups (TSAG) capable of participating in each of the subsequent phases of subproject development. The key deliverable of the Feasibility Study Phase is a technically viable feasibility study that meets the needs, and has the formal endorsement, of each concerned TSAG, as well as that of provisional IAs and a Federation of IAs (as appropriate). The Feasibility Study Phase ranges through several organisational, information gathering and participatory activities whose collective objective is to engage community participation in determining the parameters of the irrigation system. The Feasibility Study Phase culminates in community review and endorsement of the draft feasibility study. The SPISP team is finding in practice that it needs about eight or nine months to complete the Feasibility Study Phase in large subprojects (those with a service area of up to 3000 ha).

Table 1. User participation in the Feasibility Study Phase

Activity	Nature of Participation*
1. Community entry and orientation (CEO)	Planning and conduct of project orientations at TSA level by a core group of users
2. Technical data collection and resources survey	Sharing of information with NIA Feasibility Study Team
3. Farmer Group (FG)/Turnout Service Area Group (TSAG) formation and baseline data collection	Planning and conduct of identification of target groups using participatory techniques and simple materials to generate data on list of all water users, profile of households, land tenure status, average landholding sizes, location of farms relative to water source, and main agricultural problems; and formation of FGs/TSAGs
4. Irrigation situation analysis (ISA)	Selection and organisation of target group (male farmers, women, youth, Indigenous peoples) representatives at service area, lateral and system levels; and identification and prioritisation of agricultural development needs at various levels
5. Participatory service area delineation (PSAD)	Planning and conduct of walkthrough of service area with subproject staff for confirmation of preliminary layout map
6. General layout of irrigation/ drainage systems	
7. Plan formulation for feasibility study	Participation in consultation meetings for review/confirmation of draft plan
8. Subproject profile preparation and concurrence	
9. Community review and endorsement (CRE) of draft Feasibility Study (FS) Report	Actual review and dissemination of draft Feasibility Study Report from system level down to turnout service area level; and endorsement or rejection of the report
10. Submission of FS Report to ADB for approval	

* The cascading system is initiated right from the first activity; informed collective decision-making is initiated during ISA.

The Detailed Design Phase follows the Feasibility Study Phase. One important output of the Detailed Design Phase is the formal organisation of the previously provisional IAs. This is achieved by the grouping of TSAGs that are sharing a common lateral. Also, for the larger National Irrigation Schemes, the process formalises organisation of a Federation of IAs, as the apex organisation for IAs. The major output during this phase however is the detailed subproject design, informed by participation of the membership of the concerned IA. The Detailed Design Phase culminates in a subproject Memorandum of Agreement, which NIA signs with the IAs in order to document a mutual understanding of the nature and

scope of the subproject, including the IA commitment to its equity share contribution. The SPISP team has found that the Detailed Design Phase lasts about six months.

The Construction Phase, on the other hand, may last up to two years depending on the size of the system and the complexity of the works involved. The main output of the Construction Phase is an irrigation system built, as far as possible, through labour-based methods. Use of labour-based methods plays a key role in the ability of IA membership to generate their equity share contribution to the subproject. IA members who participate in the construction workforce pass part of their income back to the IA as their share of the equity cost contribution. The IA subsequently transfers this money to NIA.

The final phase of PIMT is System Management and Agricultural Development. This phase may last for up to three years from the end of construction and the commissioning of the works. During the System Management and Agricultural Development Phase NIA will mentor each IA through an apprenticeship program of on-the-job training in management of the irrigation system. NIA will also make technical assistance available to the IA in various areas, particularly in agricultural development.

Systems Transfer is the milestone that recognises the IA as a viable organisation. System Transfer will mark the end of the System Management and Agricultural Development Phase. SPISP is anticipating System Transfer at approximately 6 years after commencement of the system feasibility study. At that point, the IAs sharing a system should have demonstrated their managerial capabilities and should be exercising their O&M responsibilities satisfactorily. NIA will then transfer management responsibility as well as physical assets to IAs.

Following Systems Transfer subproject beneficiaries will assume the responsibility of covering 100 per cent of the cost of operating and maintaining their irrigation systems. They will have to set their own fee structure internally so that they are ready to cover the costs of emergency repairs in addition to the costs of routine O&M. They will also have to make provision for collection of the fees that they set. NIA will remain a source of technical assistance and follow-up training but the IA will otherwise take full charge over day-to-day operations of the system.

The Cascading System of Small Group Activities and informed collective decision-making

One challenge of PIMT has been to develop a cost-effective approach to training that maximises the flow of information among participants. SPISP has developed a Cascading System of Small Group Activities and on-the-job training.

The principle of the cascading system is that trainees at one level become trainers at the next lower level. NIA staff and SPISP consultants focus their direct efforts at implementation of small group activities and on-the-job training on the Federation of IA level. They at the same time prepare Federation of IA personnel to conduct the same small group activities and on-the-job training exercises with IA personnel. NIA staff and consultants are available for supervision and support of IA small group activities and on-the-job training exercises but Federation of IA personnel conduct the actual exercises at the IA level. Federation of IA trainers, in turn, prepare IA trainees to conduct the same exercise at the TSAG level with

the TSAG membership. Federation of IA trainers are available for supervision and support at the TSAG level when IA personnel conduct the training.

The cascading system is a mechanism for providing information flows and feedback from lower to higher levels. Many small group activities include collection of information that feed into decision-making. In the process of carrying out any exercise, the instructor gathers valuable information and points of view that feed into their role at the next higher level. The cascading system incorporates an approach that assures that personnel at the next higher level are well informed about the observations, insights, concerns and constraints at the next lower level.

The cascading system is proving a cost-effective strategy to diffuse information among subproject beneficiaries. A relatively small number of NIA staff is thus able to expeditiously convey a body of information to up to several thousand farm household decision-makers. The objective is to empower beneficiaries to make informed decisions concerning their collective interests.

Community Review and Endorsement of each sub-project Feasibility Study

Community Review and Endorsement of the draft feasibility study report is the climax of farmers' participation in the Feasibility Study Phase of the PIMT process. It is a precondition for subproject approval. Community Review and Endorsement provides a medium for farmers to assess the responsiveness of the proposed subproject to community needs as identified in mobilisation activities earlier in the Feasibility Study Phase. A favourable outcome of Community Review and Endorsement means informed acceptance of a proposed subproject scope and cost by farmers. It includes acceptance of their roles and responsibilities, agreement with the principle of proportional water rights for all farmers in the service area, and for their equity contribution to the cost of construction.

The main purpose of Community Review and Endorsement is to involve all target groups in informed collective decision-making (ICDM). The ICDM process ensures all members of the community have had the opportunity to either endorse, or propose amendments to the subproject as described in a draft feasibility study report. The draft report itself is a collaborative effort of NIA's Project Development Department technical data collection and SPISP's participatory socio-economic data collection methodologies. Specifically, Community Review and Endorsement achieves the following objectives:

1. It assists local communities to assess whether a proposed subproject is responsive to their agricultural development priorities as formulated during mobilisation activities
2. It enable these communities, and particularly disadvantaged groups such as women, ethnic minorities and the poor, to decide whether the proposed subproject scope and cost estimates is acceptable. This decision making is particularly transparent on key issues such as the farmers' equity contribution to the cost of construction or rehabilitation, and equal water rights for all farmers within the service area
3. It engages these communities in defining roles and responsibilities for cost effective implementation of irrigation construction/rehabilitation and sustainable management of the irrigation system

4. It provides a forum for public announcement of the community's decision on the proposed subproject to be accompanied by the signing of a 'Resolution for the Endorsement (Non-Endorsement) of the Subproject Feasibility Study'.

Participatory Planning of Terminal Facilities

Experience has shown that when farmers are not consulted in planning and design of terminal (tertiary) facilities they, subsequent to construction, may demolish structures and ditches to adapt them to their needs. The rationale for Participatory Planning of Terminal Facilities is to eliminate the discrepancy between designed service area and actual service area, to avoid construction of unplanned farm ditches by farmers during system operations and to eliminate construction of farm ditches that farmers subsequently abandon.

Under SPISP, Participatory Planning of Terminal Facilities takes place early in the Detailed Design Phase of the project. It ensures farmers participate in the actual planning and design of terminal facilities in their TSAGs. Practical application of design concepts will be demonstrated to ensure the cascading system of on-the-job training for farmers.

Farmer equity contribution

SPISP underlines and justifies irrigators' participation and ultimate legal transfer of system assets to IAs by requiring an equity contribution to the cost of developing each subproject. SPISP is asking beneficiaries to contribute 25 per cent of the total construction costs, excluding the cost of storage dams for small reservoir irrigation systems. Beneficiary equity contribution may be made in the form of cash or labour or materials or in the concession of land for right-of-way for canals.

Beneficiary IAs may borrow up to 40 per cent of their equity cost contribution, a maximum of 10 per cent of total subproject construction costs, from NIA. They will then repay the loan over a 25-year period after a three-year grace period at a market-based interest rate of 14 per cent per annum.

Participatory Irrigation Management and Transfer Implementation Manual

The project team has developed a PIMT Implementation methodology in detail. Over the life of the project the team has field-tested the methodology in its subprojects and extensively refined the approach. The PIMT Implementation Manual documents the participatory process that the SPISP team has formulated, adapted and practiced. The Manual is intended to serve as a tool to facilitate training of NIA staff at the central level, the regional level and the subproject level in implementing future subprojects.

The SPISP team has released the PIMT Manual for the Feasibility Study, Detailed Design, and Construction Phases. The documentation of the System Management and Agricultural Development Phase is still being iteratively refined.

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