The following are lessons learned from research conducted by IIMI and others on farmer organizations in irrigation management around the world, with particular reference to Asian countries.

1. Experience in many countries including the Philippines, Indonesia, India, Pakistan and Sri Lanka proves that farmers can be organized to improve irrigation system management; organizing farmers can lead not only to better production and more equitable water distribution, but also to better relations between farmers and agency officials. Farmers' participation in irrigation management through farmer organizations can play an effective role in:

- acquisition, allocation and distribution of water;
- planning, design, construction, operation and maintenance of the canal system;
- resource mobilization and management;
- communication and conflict resolution.

2. In order to achieve active participation, improve group interactions and reduce conflicts, it is most effective to build upon small, hydrologically defined, groups of about 10-15 farmers as the primary organizational units. Small groups ensure that all farmers can participate in group decisions. The groups should include all of the farmers making use of the irrigation water and not limit participation to some subgroup such as landowners.

3. There is no maximum size limit for a farmers’ organization. There are effective farmer organizations managing small command areas of 20-25 hectares and large command areas ranging from 3000 ha to 15,000 ha. In a large system, a farmer organization needs several tiers, each with specific responsibilities, or smaller groups can form a federation. The 15,000 hectare Karnali system in Nepal, the 458,000 hectare King's River Water Association in Fresno, California and the 150,000 hectare Chia-nan Irrigators' Association in Taiwan are examples of federated farmer organizations.

This note is prepared jointly by Drs Jeff Brewer, Douglas Merrey, Douglas Vermillion and R Sakthivadivel.
4. Farmer organizations must have real power and control real resources. Generally, the irrigation department or other government agencies must agree to transfer powers and authority to the farmer organizations. Sri Lanka, India, Indonesia and Philippines all have many examples where farmer organizations have failed because actual decision making power was kept by government agencies; these countries also have many examples where farmer organizations have functioned very well when given real power and have had legal clarity about rights and responsibilities and the authority to apply sanctions and settle conflicts locally. The many examples of farmer constructed and managed systems are also clear evidence that farmer organizations succeed when they make decisions about resources and take responsibility for the management of those resources.

5. A farmer organization whose primary felt need is water, should reach a level of managerial sophistication that ensures a reliable water supply before it undertakes other agriculture related activities. Other possible activities include: supplying fertilizers, credit, agricultural chemicals, or seed to its members, providing marketing or post-harvest processing services, and others. Many of these activities augment the productivity of water: A tendency for farmer organizations to undertake additional activities on their own once they can manage irrigation water can be observed in the Philippines and Sri Lanka.

6. When rehabilitating, modernizing, or upgrading an irrigation system, efforts to organize farmers or strengthen existing farmer organizations should begin well before the physical works are initiated. It has been shown, however, that an immediate event requiring group decision-making and local investment can be an effective catalyzing influence for organizing farmers'. The experience of the IIMI/WECS Action Research Project in Sindhupalchowk (Nepal) shows that once farmers are organized, physical construction does not take long. Many examples in Sri Lanka, India, and the Philippines show that if design and construction do not precede or occur together with organizational development, the work is slower, less effective, and often faces opposition or even sabotage from the farmers. Organized farmers can and should contribute directly to the planning, design, and implementation of modernization works. Development of management capacity should always accompany development of physical capacity.

7. Participation of farmers in irrigation management, including willingness to contribute labor, cash and other resources to operations and maintenance, is directly related to their power to make real decisions that affect irrigation system performance. Agreements with farmer organizations to invest their own resources to management or rehabilitation also ensures that they will take an interest in and participate in decision-making.

8. Certain ways of dealing with farmers and farmer organizations serve to strengthen the organizations and make them more effective and sustainable. These include:

- Demonstrating idea that participation in the farmers organization will help individual farmers by improving system performance.
Channelling **project activities**, including construction and extension, through the farmers **organization** will help build the farmers’ self-confidence and management capabilities.

Accounting for the use of funds in operations and maintenance or in modernization projects must be public so that farmers **can see** how resources are being used. Honest and transparent use of resources dedicated to the system gives the farmers confidence in the government agencies or farmers’ organizations involved and helps make the farmers effective partners in the irrigation development activities.

Farmer representatives duly elected by the farmer organizations themselves without interference by outsiders are far more effective in serving the farmers and in making decisions than are farmer representatives selected by outsiders, no matter how well qualified they may be. A representative selected by an outsider or with the help of an outsider’s influence will not be trusted by the farmers because he does not owe his position to the farmers.

Farmer organizations should ensure that control cannot be captured by special interests. At a minimum this means a) members must have a way of expelling their leaders from their posts, and b) external authorities must support group decisions on their internal affairs and refrain from interfering. There should be a proportional relationship between farmers which invest in their systems and those who receive the benefits, either at the individual, small group or federated levels.

The structure of farmer organizations should be compatible with local ideas about how to create and run an organization as long as the structure provides the features described above. General models or models from elsewhere should not be imposed nor written into law.

Training for both agency staff and farmers should be arranged to ensure the attitudinal changes required for effective farmer participation. These changes include an acceptance on the part of agency staff of the right and value of farmers’ taking part in decision-making as well as acceptance by the farmers of their new responsibilities.

The transfer of powers from an irrigation department or other government agency to a farmer organization should be negotiated and codified into a clear memorandum of understanding between the agency and the farmer organization. The document should define clearly the jurisdictions, roles and responsibilities of both parties.
The strong, active interest of top policy makers is essential in overcoming bureaucratic inertia and resistance in any farmer organization program.

Farmers themselves have often played an effective role in organizing other farmers, through the use of farmer-to-farmer exchange visits and the training of progressive farmers to assist in organizing.

9. Many national and state irrigation acts do not provide for farmers’ participation in irrigation management. Even where legal provision exists, the provisions generally need to be further strengthened and modified.

10. Experience in the Philippines, Indonesia and Sri Lanka shows that, as farmer organizations become more effective, they are capable of taking increasing responsibility for irrigation system operations and maintenance, thus relieving the government of these burdens, both managerial and financial.

11. Because of the complexity of the process of shifting from reliance on government agencies to reliance on farmer organizations, requiring changes in both parties, no detailed blueprint for achieving this shift is possible. Instead, the process requires experimentation, negotiation, adaptation to local circumstances, and time. It should be emphasized that planners must be prepared to take a long time period to achieve sustainable changes needed at all levels. Sri Lanka, for example, has made significant progress during the last 14 years but will need several more years to complete the required changes. A large country like India will need more time.

The Farmer Organization Process

There is no single model for farmer organizations. Each farmer organization must respond to its peculiar environmental and system requirements including agro-climatic and crop requirements, the local cultural system, and the legal and organizational environment.

However, we can specify a process for developing effective organizations. Key requirements for this process are:

- Participation **by** all involved (farmers, officers, others if relevant).

- Commitment and joint provision of needed resources.

- A single center within the government department dealing with irrigation management responsible for the promotion of farmer organizations.

- A clear policy about the package of assistance to be given to the NGOs involved, if any.
A learning process approach: experimentation through pilot projects, codification of lessons learned in the pilot projects, then replication on a wider scale while allowing for adaptation to local circumstances.

Experience in several countries, including India, has shown that using catalyst agents or institutional organizers (IOs) can be an effective way to proceed. Catalysts provide the initial energy needed to actually get the farmers to work together while at the same time provide the initial contacts and communication between the incipient farmers organization and the irrigation agency. These contacts must eventually lead to negotiation of rights and responsibilities of the farmer organization. IOs can be recruited from NGOs, universities, trained agency field operations staff (a low cost approach in Indonesia), from local villages (Sri Lanka) or from among progressive farmers themselves (another low cost approach in the Philippines).

The following process has found to work well in organizing the farmers:

- hiring and training of IOs;

- IOs carry out the following tasks:

  i. conduct an information campaign to explain to the farmers the objectives of farmer organizations and to solicit feedback from them;

  ii. carry out a diagnostic analysis of the irrigation situation through consultation with farmers;

  iii. prioritize the problems with irrigation performance and determine how organization can help solve the problems;

- form a formal organization of farmers, and register it with the government in order that it may have a legal personality;

- train farmers in group dynamics and organizational management in order to build trust among each other and to develop their communication skills and capacity to work together as a team;

- train farmers in water management and operation and maintenance based on actual system-level needs and resources;

- assist farmer organizations to develop locally appropriate work plans for at least two seasons, until the farmer organization is ready to take and willing to take responsibility on its own;

- assist farmer organization to negotiate with the irrigation agency to take over responsibilities and to have the needed powers to execute those responsibilities;
provide assistance and support to farmer organizations for an additional period to ensure their viability.

**IIMI’s Involvement with Farmer Organizations in India**

IIMI has worked with farmer managed irrigation systems in a number of countries (Philippines, Nepal, Sri Lanka, Indonesia, Bangladesh) over the last six years. In addition, IIMI is directly involved in programs for the turnover of system management responsibility to farmer organizations in Sri Lanka, India, Indonesia, Philippines, Pakistan, Nepal and other countries. Both of these activities have involved work on irrigation systems in many different agro-climatic and socio-economic environments.

In many parts of the world, effective local institutions represent the main hope for achieving substantial progress in irrigation sustainability and equity. Numerous countries in Asia, Africa and Latin America have national programs to transfer management for irrigation systems to local irrigation institutions. There is an urgent need for knowledge about processes and results of management transfer and, more generally, about how to develop and sustain effective local institutions for irrigation. Many policy makers, development agencies and irrigator associations are searching for effective ways to develop and sustain such institutions. Research to-date has shown that assistance strategies to local irrigation institutions can be highly cost-effective and can result in immediate impacts.

For IIMI, development of strong and effective local irrigation institutions has a top priority. Local institutions may exist at the watercourse, minor, and distributary levels of publicly-managed systems and at all levels of farmer-managed systems. IIMI seeks to answer the question "How can effective local institutions for managing irrigation be developed and sustained?" Relevant areas of study include:

- institutional development
- resource mobilization and allocation,
- support services,
- state policies on irrigation and water use.

In India, IIMI can make a significant contribution by applying the knowledge gained elsewhere in working as partners with irrigation agencies and local research institutions.

IIMI proposes a collaborative action research project that applies the farmer organization process described above to develop farmer organizations in one or more irrigation systems. Implementation of the project would be undertaken by the responsible irrigation agency or by an NGO with assistance from IIMI. IIMI and an Indian research institution would be responsible for documenting the implementation process, including changes in the process that are made as the implementors learn how best to proceed, and for documenting and reporting the results of the project. The results would provide guidelines for the implementation of farmer organization programs under similar cultural and agro-climatic conditions in the same state.
IIMI recognizes that similar experiments already exist in India; an example is the CASAD work in the Mula System in Maharashtra. IIMI should not compete with or duplicate existing work. To avoid competition or duplication, IIMI could work in places where experiments do not already exist or could strengthen existing experiments by lending its international experience and personnel.

IIMI wishes to emphasize the collaborative nature of this activity. IIMI would work as a partner to the implementing agency and as a partner to the research institution. One of IIMI’s goals would be to improve the capacities of the irrigation agency to formulate and implement such programs. It must be emphasized that in the long run a successful farmer organization program necessarily will be accompanied by policy and organizational changes within irrigation agencies. IIMI can assist irrigation agencies, as needed, to develop comprehensive organizational change strategies and assessment of options. Another of IIMI’s goals would be to strengthen the capability of the Indian research institution to conduct relevant action research in this and other areas of irrigation management.

Initially, given IIMI’s current resources and lack of a resident program, it would be best to work in one or two states where there is strong government interest in pursuing farmer organization activities.

Because more is known about the farmer organization process in tropical rice systems (as in Sri Lanka and the Philippines), one of the systems chosen should be of this type, perhaps a system in Tamil Nadu or Kerala.

Although the details of farmer organizations and of the responsibilities to be transferred to farmers depend upon agro-climatic conditions among other factors, the general process for organizing farmers does not depend upon these factors. Therefore, it would be useful to work in a state which has different agro-climatic conditions. Such an experiment would provide new information useful not only in that state but elsewhere in the world. Gujarat would be a strong possibility for the second experiment.

Commitment

Experience in various countries clearly shows that turnover of irrigation system management responsibilities to farmer organizations offers the possibility of improving the efficiency and effectiveness of irrigation systems, improving agricultural productivity in those systems, and reducing costs to the government.

However, IIMI reemphasizes that undertaking an effective program to turn over irrigation system management responsibilities to farmer organizations requires:

- investment of resources, although the needed resources are quite modest when compared with investment in physical construction for new systems or rehabilitation;
- organizational changes within the government agencies dealing with irrigation management;

- changes in policies and laws dealing with the management of water resources;

- a substantial length of time, particularly in a large and varied country like India.

IIIMI can and will commit its international staff and experience to providing assistance and guidance to Indian agencies and institutions in effecting the necessary changes.