
The World Bank/WBI's CBNRM Initiative
Case Received: February 11, 1998
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COMMUNITY-BASED INSTITUTIONS FOR LOCAL MANAGEMENT OF WATER RESOURCES: RESULTS FROM INITIAL EFFORTS IN PAKISTAN

Identification of the Case

The case is based primarily on an institutional development pilot project focusing on "Farmer-Managed Irrigated Agriculture", which is being implemented by the International Irrigation Management Institute (IIMI) at three different locations in the Left Bank Outfall Drain (LBOD) districts in the Sindh Province of Pakistan. This action research is funded as part of the LBOD Stage I Project by the World Bank and the Swiss Development Cooperation.

The social organization pilot project in the Sindh is one of three such major pilot efforts by IIMI in Pakistan. The first pilot site to be started in this study program was the Hakra 4-R Distributary in the Fordwah Eastern Sadiqia (FES) irrigation and drainage system in south-eastern Punjab. Activities at this pilot site are part of the institutional development component of an on-going IIMI research project, "Managing Irrigation for Environmentally Sustainable Agriculture in Pakistan", funded by the Royal Netherlands Government. IIMI is also engaged in a similar activity in collaboration with the Water Resources Research Institute (WRI) of Pakistan's National Agriculture Research Centre, at two small dams, located near the Fateh Jang town in northern Punjab. This activity is financially supported by the Department for International Development (DfID) of UK.

The case study is also based on a synthesis of policy formulation processes in Pakistan initiated by the efforts of the World Bank and other donors. These efforts are meant to make the country's present institutional framework more responsive towards users' involvement in natural resources management. Attempts at establishing an enabling policy and institutional environment for participatory water resources management are discussed and the existing issues and constraints related to change are briefly analyzed.

The Initial Situation

Institutions are to match the unique combination of variables in a given system (Ostrom, 1992). The combination of contextual variables in Pakistan would include the following main characteristics:

- skewed land ownership pattern
- increasing number of small landholdings
- majority of water users are illiterate, poor and small landowners
- lack of information sharing
- centralized irrigation bureaucracies
- lack of accountability of officials
- political interference
- disregard towards operational rules
- inadequate maintenance
- inequitable water distribution
- stagnant crop yields

The major focus of IIMI's approach in mobilizing social organization efforts was on the local social context. Initial investigations during baseline surveys indicated that the community in the Sindh pilot sites was characterized by a skewed land distribution and fairly deep rooted mistrust in the strangers. The combined effect of these two factors meant that a few influential farmers would assert in most community decisions and a field team's ability to reach the people would be restricted. The small farmers and the large number of tenants also tended to be reluctant in providing information or in communicating with the outsiders. The exclusivity of the landowner-tenant relationships in terms of social interactions within the community had created a strong mistrust among these people regarding any interactions coming from visitors to the area.

The social context was also identified with a "canal irrigation culture", which had been fashioned by the long association with a legal framework of three main enactments: the Canal and Drainage Act of 1873, the Sindh Irrigation Act of 1879 and the Punjab Minor Canals Act of 1905. The operation, maintenance and water allocation rules in canal irrigation are all administered under these laws. The "canal irrigation culture" pervades the rural life in canal command areas. The major source of employment is irrigated agriculture, the people's knowledge and skills are closely linked with it, and they speak an "irrigation language". Most of their disputes and litigation efforts are also related to irrigation. Their habitats are generally identified in terms of hydraulic boundaries.

The Change Process

The pilot projects were based on two major objectives. First, there was a need to test the viability of social organization for irrigated agriculture in Pakistan, which is perceived to be having a strongly hierarchical society and a well established irrigation culture. Second, it was felt necessary to test the viability of organized water users managing parts of the large canal irrigation systems so that more efficient and equitable allocation and use of water could be achieved in the given context.

To achieve these objectives, the following were the main of project activities:

1. gain an understanding of the existing ground situation in the selected pilot distributaries/dams by way of collecting baseline data on physical, socio-economic and institutional aspects;

2. use this knowledge to interact with the water users in the pilot distributary/dam command area with a view to discussing with them the possible management strategies for improved productivity and sustainability of irrigated agriculture in the area;
3. mobilize the necessary institutional support for assisting the water users in selected pilot distributaries/dams and catalyzing their interest to establish appropriate water users organizations;
4. facilitate interactions between water users and operating agencies; and
5. assist in setting in motion a series of institutional development activities to support these newly established water users organizations to undertake responsibility for maintenance and operation of secondary and tertiary levels of the canal irrigation system and small dams for improved water distribution.

Given the need to accomplish this essential set of activities in a difficult social context, IIMI decided to adopt a slow and progressive or step-wise approach in social organization interactions, using a small field team of social organizers at each pilot site and a number of local volunteers to supplement it.

Small Field Teams: Usually, the pilot projects are over-burdened with highly qualified and trained staff. Often, they have been found to be unable to reach the community deeply enough for better mutual understanding of project objectives and conditions. Also, such an approach with large staff and highly qualified staff being deployed in pilot projects has made the project findings less replicable. The field approach of IIMI involved the placing of social organizers in the community to interact with and slowly catalyze the farmers to identify their own problems, solutions, leaders, organization, financing, budgeting, and management. For each pilot command area, a Field Team of 3 to 5 members was deployed initially, consisting of one Team Leader, all being of either sociology or agricultural science background.

Community Based Volunteers: A distinctive feature of the methodology adopted in this action research program was the use of "social organization volunteers" (SOVs). The SOVs essentially served as a link between the small field team and the community, and in effect formed part of a social organization team. The SOVs were selected using a five-point criteria (knowledge about the community, willingness to communicate with others, non-controversial personality, having a value base favoring social work, and absorptive capacity to be trained as a social organizer). The selected persons were given a special training and were deployed to work along with the field team members.

Phased Approach to Social Organization: A community, which is fairly suspicious about outsiders and outside interventions, needed to be approached cautiously. However noble the pilot project's intentions were, the slightest suspicion by the community could form a social barrier to interventions, particularly when they were aimed at organizing people. This cautious approach was to gain entry into the community slowly through well-designed steps in interactions, each step meant to progressively establish mutual trust between the farmers and the field team members. In the gradual step-wise approach chosen by the project, the process of organization of water users was designed to be in four phases: 1) support mobilization; 2) initial organization; 3) organization consolidation; and 4) organizational action. The first two phases of this iterative process took relatively more time. The experiences prompted some changes to be incorporated

into this process for each pilot site, depending on its special physical and community characteristics.

The support mobilization phase was a "get set" stage during which the field teams were mobilized and trained, initial collaborative arrangements were discussed with operating agencies, selection of the pilot sites was finalized, members for a Field Implementation Coordination Committee (FICC) were identified, and initial baseline information was collected. Being a learning exercise, the training for the field staff was mostly derived from the experiences of social organization field research conducted already in the Hakra 6-R Distributary. This training included farmer interviews, use of key informants, process documentation, and some exposure to other social organization projects in the country.

In the next initial organization phase, some progressively advancing steps in interacting with the community were taken. Unlike many top-down government projects, in this pilot project, a consciously developed participatory approach was adopted. This approach itself made the field team's task so much more difficult than the usual practice of "handed down" instructions, and the challenge was that each step taken collectively with the people had to be based on the popular agreement on the previous step's results. Gradually, the majority of the water users were convinced that the pilot projects were for their own benefit, which they had to achieve with work hard.

Five Dialogic Steps: The step-wise process in the Initial Organization phase was of progressively enhanced interactions in a series of meetings with the water users, which culminated in forming water users federations in the pilot areas. Building on the steps already taken, the process advances towards the group behaving on mutual trust, sharing information, consulting for consensus, developing options and implementing an appropriate organization design. Since the interactions were initially between the catalysts and the water users, the stages of this iterative process of social organization was named "Five Dialogic Steps".

First Dialogue: A series of "familiarization meetings" to get to know the area and the people in general, and to introduce the purpose of field team's visit to whomsoever met in the command areas, the idea of the pilot project and its proposed activities.

Second Dialogue: A series of "rapport-building meetings" to meet with the identified SOVs and other water users in small groups. The main purpose was to explain the objectives, status and programs of IIMI and build up fellowship with the SOVs and their colleagues.

Third Dialogue: A series of "consultation meetings" to consult the water users for developing tentative plans for establishing water users organizations. These consultation or planning meetings formed a crucial step in the social organization process to ensure that the water users knew the project objectives clearly, and to follow up on earlier rapport building meetings for clarifying any misunderstandings among the people regarding the program.

Fourth Dialogue: A series of "selection meetings" for the purpose of discussing the process for selecting or electing organizational leaders at the primary (watercourse) level.

Fifth Dialogue: "Federation meetings" to initiate the identification of office bearers for the pilot Water Users Federations. During these interactions, the water users were encouraged to select the watercourse nominees, who would form the general body of the federation in each pilot area, and then proceed towards selecting the WUF office bearers.

The Outcome

The pilot project was successful in establishing widely accepted water users federations, which, in a short duration of time, were able to mobilize resources and collective interest to attend to maintenance requirements of the distributary canal pilot sites. In terms of the potential for operation and maintenance management, the results shown by these WUFs so far are very favorable. Given some time for consolidation, and continued institutional support, the pilot projects are most likely to become socially and economically viable management organizations and to provide widely replicable encouraging results. This development will greatly contribute to reducing the strain on ailing government agencies, improving the equitable distribution of water resources, and enhancing the productivity of both water and land resources.

The Lessons Learned

The biggest advantage in having the community-based volunteers was felt when they took upon themselves to explain the objectives of the project and the background of IIMI, at a very critical stage of the project. A few months after the field work was started, IIMI's interventions related to farmers' participation in O&M management were seen by some people, particularly those who had some vested interest in retaining the status quo, as part of a hidden agenda sponsored globally by aid agencies and countries associated with them. IIMI was projected by these people as an alien agency working for achieving conspiratory objectives detrimental to Pakistan. At this stage, no amount of discourses by IIMI staff could save the situation, and only the SOVs' voluntary actions managed to dispel such doubts and misconceptions. The community preferred to rely on assurances and explanations of their own opinion leaders than on the professional discourses by IIMI staff.

Although action research pilot projects try to introduce change in a limited way, without the support of broad-based policy, they are usually unable to achieve wider acceptance of change. However, the pilot projects can surface the issues related to desired change for the benefit of future policy guidance. Preliminary results from these pilot project experiences raise the following main issues:

- There is a strong link between physical characteristics of irrigation and drainage systems and the institutional requirements for their operation and maintenance;
- The character of a community impacts on its capacity for sustainable social organization;

- Farmers' participation in operation and maintenance management depends on their ability to clearly see the potential for individual gains arising from participation; and
- A strong institutional support including an enabling legal framework is essential for sustainable farmers' participation in operation and maintenance management. Recent donor initiatives for organizational restructuring and for related legislation contributed positively to the realization of pilot project objectives. However, the bureaucratic apathy in applying the new legal measures delayed this process.
- An integrated approach to cover system-wide management problems would be a more productive institutional solution to the current situation. A package of institutional reforms, of which creating farmer organizations is only a component, is more likely to succeed in the longer term. Pakistan has embarked on such a comprehensive reforms package.
- Rural societies are profoundly complex; farmers are of different distinct social groups with different sets of goals and objectives, and different alliances. The formal rules designed to govern their conduct in an orderly manner give way to flexible informal rules. Forces of tradition, such as feudalism, caste and biraderies have a greater influence over people's lives than the written codes of law. These deep rooted informal behavioral patterns need to be identified and used in designing institutional change for appropriate grassroots involvement in natural resource management.
- Popular participation is believed to be a strategy to increase the probability of establishing infrastructure people want, in ways people can and will manage them (Mienzen-Dick et al, 1995). This approach implies a new role for the water users. They are expected to have a major attitudinal change from being mere "beneficiaries" of government assistance to sharing responsibility for managing infrastructure. More importantly, the water users have to change to a new situation in which they think and act as groups rather than individuals. The success of this approach requires a redefinition of the roles of the other actors as well. Redefinition of roles while focusing on users' participation implies that the government's operating agencies and their staff will have to empower the water users for undertaking new management responsibilities; the regulatory and enforcement agencies and their staff will have to recognize these changed roles of various actors; the agriculture extension agencies and their staff will have to support the organized water user groups; and the big landlords and other rural-based influentials will have to acknowledge a new power base emerging in the water users' organizations.
- Most of the different (but inter-linked) institutions are related to different stakeholders of irrigated agriculture. The economic, social and political viability of a package of institutional reforms would depend on its ability to satisfy the overall interest of these multiple stakeholders.