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Empowerment of Farmer Organizations

Case Study of Farmer Managed Irrigated
Agriculture Project, Sind

Hammond Murray-Rust
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Working Paper 19

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International Water Management Institute

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CONTENTS

SUMMARY	1
INTRODUCTION.....	2
PAKISTAN’S IRRIGATION SYSTEM	2
PROJECT BACKGROUND	2
EMPOWERMENT OF FARMER ORGANIZATIONS	3
EMPOWERMENT	3
EMPOWERMENT: MOVING FROM INFANCY TO ADULTHOOD	5
CONCEPTUALIZING WIN/WIN APPROACH	6
THE RATIONALE FOR ESTABLISHMENT OF FARMER ORGANIZATIONS FOR IRRIGATION AND DRAINAGE MANAGEMENT	77
THE RATIONALE	7
LEGAL ELEMENTS OF EMPOWERMENT	8
LEGAL STATUS.....	9
FORMATION OF FARMER ORGANIZATIONS	9
RESPONSIBILITIES AND OBLIGATIONS	12
TECHNICAL ELEMENTS OF EMPOWERMENT	13
INSTITUTIONAL ELEMENTS OF EMPOWERMENT	14
PROGRESS TOWARDS EMPOWERED FARMER ORGANIZATIONS IN SINDH.....	15
LEGAL AND TECHNICAL PROGRESS.....	16
SUPPORTING TO CRAFT FARMER ORGANIZATIONS	16
CONCLUSIONS	17
REFERENCES	18

SUMMARY

This paper reviews the conditions and progress towards empowerment of Farmer Organizations under the Farmer Managed Irrigated Agriculture Project in Sindh Province of Pakistan. It starts with a discussion of empowerment and the type of responsibilities all parties must have. It also discusses the inception of an organization that can take full control of its own affairs and collaborate with other agencies in its own right, with its own objectives and ways of accomplishing those objectives.

The paper views the conditions necessary to achieve the goal of an empowered and vitalized organization. It also addresses issue of legal framework, which legitimizes the organizational structure of the organization, and of the agency which formed it. Other aspects covered are the technical skill-building activities to build the capacity of the members to manage their own affairs and the institutional issues focusing on internal capacity-building, development of an identity of the organization and the self-confidence to move into the future.

The experiences of the Farmer Managed Irrigated Agriculture Project in Sindh are reviewed in the light of the situation occurring at the end of the project. While significant progress was made on both technical development and, to a lesser extent, on legal framework to support Farmer Organizations the process was not completed and the anticipated period of self-managed Farmer Organizations never materialized.

As a consequence it was not possible to truly test the capacity of Farmer Organizations to undertake the tasks for which they were created and trained and to observe how they could cope with problems and disputes that would inevitably arise.

In retrospect the project was perhaps not fully thought through. The effort was mostly focussed on the role and activities of Farmer Organizations and not enough on what SIDA had to benefit from the project. They were left in the unenviable position to give up power but without due consideration to what benefits they would obtain. As a result they perhaps acted more slowly than they might have done to try to meet project objectives.

INTRODUCTION

Pakistan's Irrigation System

Pakistan ranks fifth in the World and third in Asia in terms of area under irrigated agriculture. The country's gigantic surface irrigation network comprises three huge dams, 16 barrages, 12 inter-link canals, two siphons, 43 main canals, about 4,000 distributaries/ minors and more than 107,000 watercourses. This contiguous network serves an area of around 14 million hectares. The water delivery system consists of about 64,000-km length of canals to irrigate over 16 million hectares of land. Irrigation contributes towards the agricultural production, which accounts for more than 24 per cent of the country's gross domestic product (GDP) and employs 54 per cent of total labor force. Irrigation and drainage including the forests are equally supportive to the development of agriculture.

The irrigation and drainage system suffers from a number of fundamental problems in which lack of public participation is one (SAR NDP, 1997). The Left Bank Outfall Drain (LBOD) project one of the largest irrigation and drainage development project in Asia with the total cost of over 20 billion rupees needs public participation for operation and maintenance. The lack of participation of community at the initial stages of this mega project has made it more difficult for the community to take it over at this final stage. Now a clearer strategy is needed to involve the communities for taking over the operation and maintenance of irrigation and drainage system.

With the passage of time, due to overuse, poor maintenance and centralized system the overall performance and efficiency of water management has been reduced and ranges from 35 - 40 percent (World Bank, 1994). Many changes occurred in irrigation scene, which differed from designed parameters and outdated the system. The key changes which are creating problems include in-discipline in the operation, institutional flaw, increasing cropping intensities, changed cropping pattern, fragmentation of land parcels, stagnant agriculture crop yield, fluctuation in canal water supplies and poor maintenance.

Project Background

In late 1995, the Government of Sindh invited the International Water Management Institute (IWMI)¹ to conduct an action research pilot project on Farmers Organizations on three (3) distributaries. The main focus of action research was to test the viability of effective user organizations to manage and operate the distributaries/minors. The project achieved its target of organizing three Farmers Organizations (FOs) on three different distributaries in Left Bank Outfall Drainage (LBOD) project area. The FOs established under pilot project for "Farmer Managed Irrigated Agriculture" in three selected distributaries in the Sindh province proved socially viable.

¹ Formerly known as International Irrigation Management Institute (IIMI)

Due to administrative delay and inadequate legal authority with FOs, the operation and maintenance responsibilities of these distributaries could not be transferred to FOs. The Government of Sindh extended the pilot project to facilitate these three FOs for the irrigation management transfer and to assist the farmers of ten more distributaries in the formation of FOs. The extended project started in April 1999 to assist farmers in the pilot areas, to explore how the three distributary level farmer organizations (FOs) and the eighty Watercourse Associations (WCAs) in the pilot project can enhance their sustainability, and to organize 10 additional distributaries.

More specifically, the extended program activities aimed at:

- 1) Consolidating the already initiated social organization processes in the pilot area;
- 2) Exploring the ways in which FOs can integrate irrigation and drainage functions in O&M management responsibility;
- 3) Assisting the FOs to develop a financially feasible plan of action in O&M management for irrigation and drainage in the distributary command area;
- 4) Monitoring and evaluating the implementation of this action plan by the FOs;
- 5) Assisting the FOs to establish an appropriate system of internal bylaws;
- 6) Forming ten Farmer Organizations (FOs) at Jamrao Canal Command Area.

During this second phase of the project eleven additional (instead of 10 envisaged in TOR) Farmers Organizations were formed. Thus, total number of FOs became fourteen and all these FOs were registered under the SIDA act.

EMPOWERMENT OF FARMER ORGANIZATIONS

Empowerment

Empowerment denotes an increase in the power an actor or group of actors command. Power is defined here in relational terms, as a capacity that actors have or lack in transactions among themselves. Anthony Giddens (1979) has defined power as transformation capacity, the ability to bring about changes in the state of things and relations among actors. Through the exercise of power, actors seek to get others to comply with their wants. Giddens argues further that power engenders relations of autonomy and dependence.

Stakeholders in a shared institutional setting are interdependent, but enjoy differential degrees of transformation capacity. They are involved in a power nexus in which they seek to control or influence the discourse about legitimate ideas and actions, to reach or impose decisions, to implement agreed upon or imposed courses of action and to enjoy the rewards of activities undertaken (Starkloff 1996). While typically some groups command greater autonomy in their ability to determine the power nexus, they are never entirely independent of those who command less autonomy, or are more dependent. In power relations actors persistently negotiate their relations of relative autonomy and dependence by bringing to bear the material and symbolic resources they control. Sanctions by which to reward and punish action

are fundamental resources in power relations. These resources may be economic, legal, cultural, ideological and social, and they are the media through which power is exercised.

The social features of irrigation system include the effective involvement of water users and their real empowerment to attaining positive change in the performance of a system. A rationale for organizing the water users is to approach the problem from the demand side of irrigation management equation (Bandaragoda and Skogerboe, 1994). Results show that in the area of watercourses where farmers are empowered, they have proved their ability to strictly follow the Warabandi, undertake desiltation and rules formulated by the community are being honored.

In the current institutional setup in the irrigation and drainage sector, the control over resources, such as the irrigation infrastructure, its management system, its financial resources and the status of roles favor the autonomy of irrigation personnel as against farmers. Farmers experience a relatively high degree of dependence on the providers of irrigation services and limited leverage to exert control over the behavior and performance of the former. The irrigation reform proposes to shift the relations of autonomy and dependence in favor of farmers by providing some degree of ownership and control over the management of farmer organizations and the local irrigation infrastructure. The degree of autonomy granted to farmers and the definition of the systemic boundaries of autonomy is subject to considerable controversy and negotiation at this stage of the reform process.

Following Merrey (1996), the meaning of empowerment may be brought into focus through the concepts of organizational and financial autonomy. Within a broad regulatory framework, farmer organizations need sufficient degree of autonomy in managing their organizations, assets, tasks and finances, so that they can enter into service agreements. Only then can stakeholders hold each other accountable and ensure that mutual commitments are honored and behavior is rule conforming. If both finances and internal governance are too tightly controlled by government and farmers' dependency is maintained, there is a danger that organized farmers will perceive themselves as a labor force which is paid. This would undermine their motivation and capacity to undertake the essential tasks of local irrigation management.

However, empowerment does not only entail the right to do things, it also incurs the responsibility to do things right. This means that organized farmers need to have the capacity to engage in legitimate organized action; to participate in debates, decisions and implementation; to competently undertake all the essential tasks involved in irrigation management; and to assimilate the necessary value system and beliefs underpinning an equitable and efficient irrigation system. Thus, skill, knowledge and rule - acceptance are essential components of empowerment.

If their capacity is demonstrated and recognized by other stakeholders, the legitimacy of farmers' empowerment in the eyes of for example the Irrigation Department's personnel will increase. Conversely, the legitimacy of the powers of irrigation personnel in the eyes of farmers will increase, if they are able to demonstrate their capacity for rule-bound and competent action. This returns us to Weber's two components of legal authority. Empowerment involves both a belief in the validity of rules and in the functional competence of those who apply them. Yet, the capacity to be a competent and rule-bound actor cannot be ad hoc. It requires from all stakeholders a prolonged and patient process of learning and

socialization, including the unlearning of habits, behaviors and dependencies engendered in a pervasive culture of disorganized irrigation management (Starkloff, 1999).

Empowerment: Moving from Infancy to Adulthood

Empowerment is the process by which a newly created organization is fostered and nurtured so that it will ultimately be in full control of its decision-making capacity. At the end of this process it can be expected to establish policies and objectives, develop and implement plans that will meet these objectives, be able to manage itself internally both administratively and financially, and be able to deal with other organizations and agencies as an equal partner.

For empowerment to be successful and sustainable there has to be patience and support from other organizations and agencies so that during the first stages of growth when mistakes are being made and difficulties encountered the new organization and its members do not become discouraged and give up.

The simplest analogy, perhaps, is the raising of one's own children. The end goal of raising ones children is that the child will pass into adulthood not merely because of age or physical maturity but because of his/her ability to make independent decisions in terms of career, personal relationships and to carry the hopes of the next generation. To accomplish this nurturing of children society has established certain conditions to support this process.

Even as minors children have rights, and are recognized in law as individuals who must be protected against abuse and be provided with certain basic necessities. We have established legal frameworks that support and protect children, and establish the basic rules and regulations concerning the way in which individuals interact with each other and society. As children get older they may have greater personal responsibility but this carries the risk of greater punishment if these responsibilities are abused.

Society also requires that children are provided with opportunities for education and training that will enable them to function as a member of society at a later age, and will provide special facilities for those who struggle in this process. The formal training process is a legal requirement because society has learned over the centuries that informal education needs to be supported by a more formal process that imparts skills required to function within the boundaries of society. Literacy and numeracy are basic needs of individuals, and society believes that provision of specialist trainers in the context of a school system is the best way to ensure all of our children can learn these skills.

After a certain age children are able to take more and more of their own decisions, not as a privilege but as right, so that by the time they reach their legal majority they can vote, marry, work and live as an equal member of society. As parents, we may not always like the decisions our children take. But we have to learn to accept the independence of our children, support them when they make mistakes, and hope that as a consequence of learning from errors they will end up stronger and more mature, better equipped to function independently in the future.

Even after reaching their legal majority, however, the new adults continue to have their responsibilities towards society so that they do not break laws, and adhere to social norms and values such as equity, fairness, honesty, and so forth. Should they transgress these laws and norms then society retains the right to impose sanctions through fines, prison sentences or ostracizing and, in the most

extreme cases, strip people of their legal rights because they are judged to be incapable of performing correctly in civil society.

The process of empowerment of farmer organizations requires a set of very similar conditions. There has to be complete acceptance that eventually the organization will be an independent entity capable of making its own decisions and functioning in an independent manner. There have to be legal conditions within which they can function. There has to be support for them in the form of education and training so that they can learn how to function independently. There has to be the acceptance that once they have reached a certain level of maturity they can make decisions and, perhaps equally important, make mistakes and learn from these.

Those who are nervous about the process of empowerment of an organization can be likened to Pandora's box: Once it is opened it can never be closed. There is no knowing exactly what the new organization will decide what it wants to do or how it wants to do it, and this is perceived by many as a threat. There is therefore the temptation to maintain control to ensure the organization makes decisions we want by restricting its freedom of movement, and to suppress its capacity to be fully independent. As a consequence true empowerment does not occur, and the child is treated as a child for the rest of his/her life.

Others may see empowerment from a completely different perspective. They take pleasure in the fact that they have brought children into the world, have invested time and effort and resources in the process of fostering a mature and independent individual. When the time comes to let go they will do so with pleasure and satisfaction and with the knowledge that there will be a strong and equal bond between parent and child that will be of benefit to both.

Conceptualizing Win/Win Approach

If people think empowerment of others will cripple their power and they may lose authority is purely a pattern of win/lose approach, which is viewing the consequences of initiatives in a very narrow perspective. The rationale is to align the thought pattern in a win/win approach where the empowerment of farmers is not seen as power loss but as beneficial to system's performance, an investment that gives returns to society as a whole in the shape of overall improvement in the socio-economic situation. The improvement in system brings prosperity, and honor to laws and values, increases in productivity. Sharing the responsibilities will lessen the burden from agency so that visible and invisible future benefits can be perceived.

THE RATIONALE FOR ESTABLISHMENT OF FARMER ORGANIZATIONS FOR IRRIGATION AND DRAINAGE MANAGEMENT

The Rationale

Over the past few decades there has been an increasing acceptance that farmer organizations (known elsewhere as Irrigation Associations or Water User Associations) have a beneficial role to play in the management of water and land resources for sustainable improvement in irrigated agriculture.

Initial efforts, such as those established by the National Irrigation Administration (NIA) in the Philippines, looked mostly at the creation of organizations at tertiary level whereby locally established organizations would work with agency staff towards improvement of tertiary conditions. The agency still had full and unshared responsibility for water resources allocation and distribution at system, main and secondary level. Similar were the efforts in Pakistan under the On-Farm Water Management Department where watercourse level groups were established to help improve water conveyance infrastructure, water distribution at tertiary level, and field level water management techniques. Neither of these approaches expected that the organization would have a role at the main or secondary level, and as a result they had little or no role to play in setting policies and objectives, or in water allocation and distribution above the tertiary offtake structure.

The Gal Oya Water Management Project in Sri Lanka was the first real effort to establish organizations that not only looked after water management at tertiary level but also played a formal role at higher level. A federated structure was established that enabled representatives of tertiary level organizations to participate in planning and allocation meetings at secondary level. The organization in turn had representatives at system-level that made seasonal decisions on water allocation between different secondary canals and on how to operate the main and secondary canal. Further, the tertiary level organizations were given the right to compete for contracts involving earthwork and minor construction as part of rehabilitation process so they took over financial responsibilities and traditional water management tasks as well.

Parallel studies of irrigation systems that were designed, constructed, operated and maintained by farmers with no government resources showed that farmers had tremendous capacity to be innovative and work together for the benefit of all. Classic examples of these type of systems come from all over the world but the more popular ones are those of Bali, the hydraulic civilizations of China and Sri Lanka, and mountain irrigation systems of the Himalayas and the Andes. There was increasing recognition worldwide that farmers could play a significant role in all aspects of water management, including investment in water capture and diversion, operation and maintenance, and financing.

Further, it became clear that they were able to include values and objectives of their own societies in the rules and regulations established for management of these systems. They could use scarce financial resources to complement abundant labor resources to establish viable systems that have lasted for decades and in some cases for centuries. In general it became accepted that farmers could be full partners in irrigation management. This recognition went beyond the original acceptance that farmers could make significant contributions both financially and through their labor, a process that not only saved agencies

money but also procured greater commitment of farmers towards subsequent operation and maintenance of their systems.

At the same time the resources available for agencies responsible for management of irrigation systems became increasingly scarce. The boom years of irrigation investment in the 1970's and 1980's had led to expansion in the irrigated area of many countries. Larger systems were rehabilitated or modernized, and agency establishments increased in number. As the investment boom tailed off towards the end of the 1980's project funding for covering routine operation and maintenance costs became scarcer or non-existent. With the backing of major lending agencies committed to privatization in all sectors of the economy many countries adopted policies whereby the irrigation and drainage sector would become self-financing with no further support from central or provincial governments.

The result of this sequence of events was the establishment of specific policies towards Participatory Irrigation Management (PIM) whereby the focus of continued investment in irrigated agriculture and associated drainage would require wholesale changes in the way government agencies would function. The primary goal was to become self-financing and independent bodies where water users and government agencies worked together as equal partners for the common good of water users and society as a whole.

The core objective of PIM is that users of irrigation water and beneficiaries of improved drainage become full and equal partners with government agencies. The users would be involved not merely at tertiary level where agency involvement was weak, but also in planning of allocation and distribution at main and secondary level. The users would be responsible for the collection of irrigation fees, the decisions over how some of the collected money would be spent, and the assumption of full responsibility for operation and maintenance at secondary and tertiary level.

The PIM approach requires complete restructuring of agencies to cope with this change in responsibility of both government agencies and farmer organizations. Supporting legal changes to permit new bodies to take over their assigned responsibilities, and a range of training and other supporting activities that enable the new structure to function. In some countries, notably Turkey and Mexico, this approach has been very successful. In the span of a few years newly created farmer organizations have assumed full responsibility for all aspects of water management at secondary and tertiary level, and can collect sufficient revenues from their members to break the financial reliance on government support and subsidies.

Legal Elements of Empowerment

A truly independent farmer organization has to have a legal identity that undertakes its mandate to serve all its members for the mutual benefit. Without such legal support and backing it remains an informal association of people who may have common interests in various aspects of water allocation, water distribution, operation and maintenance, and who may be willing to contribute their time and labor towards the good of all concerned. Such informal associations, even without legal status, may be able to contribute significantly to improved use of water and land resources but they do not have any right to take over functions previously assigned to government or other agencies. However, they have no legal rights to make changes in the way resources are allocated or distributed.

Part of the empowerment process is, therefore, to establish a legal framework in which farmer organizations can function. Because in most cases there is no provision for such organizations with legal powers and responsibilities, specific legislation was passed in the form of Sindh Irrigation and Drainage Authority Act 1997.

Legal Status

The legal status of farmer organizations has to be established. In the case of Sindh the basic framework has been established through the Sindh Irrigation and Drainage Authority Act 1997 in which a multi-tier organization has been developed. The four tiers of the SIDA structure are:

- **Watercourse Association (WCA)** which has as its members all the landowners on each watercourse;
- **Farmers Organization (FO)** which is a secondary level grouping of representatives from each of the watercourses served by that secondary canal (or, in the event of small secondary canals, two or more secondary canals so that the area covered is greater than 3000 ha or 7500 acres);
- **Area Water Board** is responsible for management at major canal level; and
- **Sindh Irrigation and Drainage Authority**, the Provincial level tier responsible for the overall irrigation and drainage sector.

This structure parallels the Sindh Irrigation and Power Department but there are two important differences.

The first important difference is that there are two organizations with legal mandate that form part of the SIDA structure. The Watercourse Associations are substantially different from the On-Farm Water Management groups who had no legal entitlement to elect or select representatives of any other body. The Farmer Organization is a new tier that did not exist before and consists solely of water users who are representatives selected from each constituent watercourse. The requirements in terms of numbers of representatives at AWB level are spelled out in the SIDA Act.

The second difference is that farmer representatives are legally included in the Area Water Board, and their quota fixed by the Sindh Irrigation and Drainage Act. They are full members and can participate in all legal activities of the AWB, which include water allocation and distribution policies at main and secondary level. This is the first time water users have been legally allowed to participate in this type of decision.

Formation of Farmer Organizations

The study area is located in the southeastern part of Sindh province of Pakistan and covers part of the districts Nawabshah, Sanghar and Mirpurkhas (Figure 3.1). The command area of Heran, Rawtiani, Mohd Ali, Tail, Bareji, Mirpur, Sanhro and Dhoru Naro distributaries/minors come under the drainage component of LBOD.

Among fourteen distributaries, thirteen distributaries off take from the Jamrao canal of Nara Canal while one minor off takes from the Rohri Canal. The Nara Canal off takes from River Indus at Sukkur Barrage. The selection of distributaries was made as follows: Three distributaries were selected in the beginning of the project by organizing one-day workshops, which were attended by the officials of the concerned department. While ten other distributaries were selected by the Project Steering Committee constituted by the Provincial Development Working Party (PDWP).

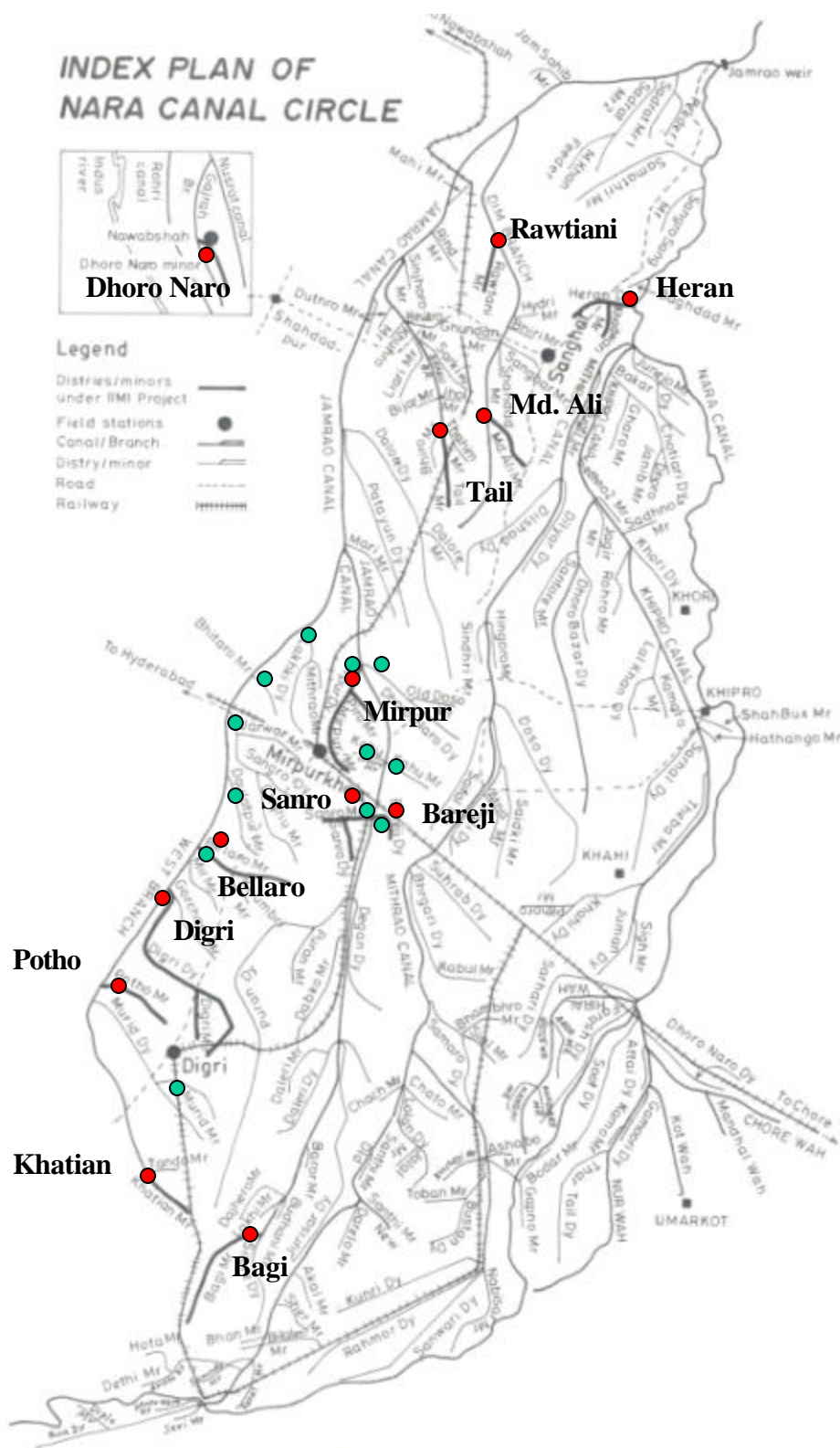


Figure 3.1. Study area.

To select the distributaries consideration was given to selection of small, medium and large size distributaries specially covering tail reach of the system. Salient features of the pilot sites are given in Table 3.1.

Table 3.1.
FO Formed.

S#	Distributary/ Minor	RD, Canal	Total Length KM (RD)	CCA (Acres)	Design Discharge (cusecs)	No. of WCs	No. of WCAs formed	Membership of WCAs	Deposited Membership fee	FO formed on (date)	Registration No. and Date
1	Heran	128-Nara Canal	10.60 (32.0)	15,410	62.50	31	31	562	31,000	20-Oct-99	(5) 25-Jan-2000
2	Rawtiani	56.4-Dim Br. of Jamrao Canal	8.83 (28.96)	9,026	29.00	19	18	329	1,700	30-Dec-99	(6) 25-Jan-2000
3	Mohd Ali	134-Dim Br. Jamrao Canal	4.67 (15.32)	3,833	10.90	10	10	76	9,000	2-Oct-99	(7) 25-Jan-2000
4	Tail	95.0-Shahu Br. Jamrao Canal	5.15 (16.90)	8,286	27.00	14	14	177	14,000	26-Apr-2000	(12) 5-May-2000
5	Bareji	408.5-Jamrao Canal	12.00 (39.31)	13,049	41.50	24	24	295	24,000	19-Jan-2000	(3) 25-Jan-2000
6	Mirpur	342- Jamrao Canal	14.80 (48.50)	16,218	63.80	53	40	418	44,000	12-Oct-99	(1) 25-Jan-2000
7	Sanhro	408.5-Jamrao Canal	10.00 (32.90)	15,367	53.80	25	27	290	26,100	18-Jan-2000	(4) 25-Jan-2000
8	Belharo	150-West Br. Jamrao	13.87 (45.50)	17,077	58.60	32	28	456	32,000	27-Jan-2000	(8) 2-Feb-2000
9	Potho	215-West Br. Jamrao	10.35 (33.11)	8,063	30.00	19	18	285	19,084	22-Nov-99	(2) 25-Jan-2000
10	Bagi	619.74 Jamrao Canal	7.60 (25.20)	8,128	28.00	14	14	205	12,000	22-Apr-2000	(10) 5-May-2000
11	Dighri	164.52- West Branch of Jamrao	29.35 (93.50)	31,627	101.80	72	57	590	66,000	25-Apr-99	(11) 5-May-2000
12	Khatian	300 West Branch of Jamrao	7.70 (24.60)	9,567	27.50	21	19	189	21,000	14-Jun-2000	(15) 30-Jun-2000
13	Tando*	300-West Br. Jamrao	5.10 (16.70)	1,806	5.50	6	6	51	5,100	14-Jun-2000	(14) 30-Jun-2000
14	Dhoro Naro	91.40-Gajrah Branch of Rohri Canal	9.84 (32.27)	13,382	51.60	25	24	400	19,960	9-Mar-2000	(9) 16-Mar-2000

* The additional minor where FO has been formed. It is not included in the TOR.

Responsibilities and Obligations

The SIDA Act does define the main responsibilities and obligations of each tier of the organization but these have to be backed up by more detailed set of rules and regulations that define the actual responsibilities of each tier.

For the FOs this requires the establishment of by-laws that spell out what they are permitted to do within the scope of the SIDA Act. The advantage of using by-laws to define responsibilities and obligations is that they can be amended much more easily and quickly than the Act itself, and thus provide opportunities to respond to unforeseen circumstances once the SIDA structure is brought into place.

The same is true for the Area Water Boards and the SIDA except that rather than by-laws they have regulations that govern their activities.

Some of the changes in responsibilities envisaged in the new system are far-reaching. Among the most important changes are:

- Transfer of responsibility to FOs to assess irrigated area and collect revenues, a task previously the responsibility of staff of the Revenue Department;
- Entitlement of FOs to keep a proportion of this fees for their own expenditures in operation and maintenance of canals and other infrastructure in their area of responsibility;
- Transfer on a fixed-term basis to FOs of irrigation and drainage structure and associated buildings and equipment; and
- Clear definition of the water delivery conditions at the head of canals managed by FOs and identification of penalties on AWBs who fail to meet these water delivery conditions.

The FOs have to be legally registered with SIDA to assume responsibilities and obligations. They have to demonstrate that the WCA was properly constituted, and its office bearers reflect their own constituent members in terms of head-tail representation.

At the time of actual transfer of management responsibility FOs have to sign a transfer agreement that identifies the infrastructure for which they have assumed responsibility, the financial obligations in terms of revenue collection and sharing, and their reporting obligations to the AWB.

At the same time regulations were required that specified the exact membership of FOs, including the number and type of office bearers, and the geographic spread of representatives so that head, middle and tail watercourses were all involved not just as general members but also as office bearers. While this might not be an important criteria in the future when FOs have become mature and able to make all of their decisions, it was viewed as an important element in the initial stages of FOs formation.

Technical Elements of Empowerment

It is one thing to establish the legal framework that defines the organizational structure within which farmer organizations exist and quite another to ensure that the organization's members actually take over the responsibilities and obligations required of them.

As part of the process of creating FOs under the SIDA Act, efforts were made to try to upgrade the management capacity of FO members so that they would assume their responsibilities at the time of management transfer. A specific project was established in which the International Water Management Institute would help to create and strengthen FOs and assist in the provision of specific training activities that would impart necessary skills to the FOs.

Among the topics that were given priority for FOs were:

- **water measurement and monitoring** so that FOs would ensure that water distribution is equitable and according to plans drawn up by FOs for water distribution among members;
- **development of maintenance plans** so that during annual closure periods the FOs would have a clear understanding of what labor and other materials would be required for canal cleaning and repair of structures;

- **assessment of cropping patterns** for purposes of revenue collection, so that the financial obligations of each member with respect to crops grown and the area under each crop are properly recorded and the correct irrigation fee is assessed;
- **financial management training** that involved bookkeeping and simple accounting procedures, establishment of bank accounts, and financial reporting procedures; and
- **establishment of a business plan** for expenditure and control of revenues, and institutional and organizational management issues that affect the way in which the FOs function.

The selection of training programs, although pre-dating the exact definition of by-laws, responsibilities and obligations, was based on a generic understanding of the needs and requirements of a typical farmer organization.

As far as possible all office bearers underwent all types of training so that in the event of personnel changes through retirement or resignation there would be others who would continue to play their part in the smooth running of the organization.

Institutional Elements of Empowerment

An institution is more than just a legal identity with technical capacity to undertake its responsibilities and obligations. It has to have an identity and a corporate culture, and above all it has to believe in its own capacity to serve its membership in the best ways possible.

An important element in establishing a new organization is the way it is crafted. Crafting an institution is a complex process that aims at several objectives that include:

- helping new and inexperienced members of organizations gain the self-confidence to make decisions in their own right rather than relying on outside institutions;
- developing the capacity of members to define policies that best serve the interests and reflect the diverse values of all sections of the community;
- developing the skill to implement policies through community actions in such a way that all members are happy and feel that all have benefited and there are no major winners or losers;
- developing a sense of ownership in the institution so that members would feel a psychological and physical loss if the institution collapsed or became ineffective;
- identifying mechanisms to discuss and resolve differences in opinion between individuals or sections of the community in such a manner that at the end all parties feel content with the result and that the result benefits all; and
- developing the skill and confidence to deal with other organizations, particularly government agencies, on a fair and equal basis.

This is a far cry from a traditional paternal situation where a government agency makes decisions on behalf of the community and it requires simultaneous effort to get organizations to interact with the newly established community and allow them to develop their skills in a fostering and sympathetic manner.

In most cases where such crafting has been successful there has been some form of neutral facilitator who is able to work with all parties concerned, not just the community that is being organized but also the institutions and organizations with which it will interact. In the context of this project IWMI played the facilitator's role, working with incipient farmer organizations, NGOs, and SIDA and AWB staff who would have to deal with farmer organizations within the SIDA structure.

To this end IWMI was responsible for undertaking training that addressed issues of establishment and strengthening of a sense of identity in the community. The main elements of these training programs, which were aimed not just at the office bearers but the water user community as a whole, included:

S#	Training	Participants (No.)
1	Social Organizer Volunteers (SOVs) workshop	361
2	Awareness on institutional reforms	120
3	Discharge measurement and walk thru survey (O&M)	487
4	Organizational and financial management	577
5	FO rules, regulations, bylaws, action plan and transfer agreement	184
8	Crop assessment and abiyana collection	105
9	Workshops on agricultural production practices	372
Total		2,206

To support this type of training other community based activities were initiated that aimed at getting the FOs and WCAs to understand the benefit of acting jointly on a wide range of activities other than just water management. Typical initiatives included:

- tree planting along canals to minimize erosion and to provide a sustainable source of fruits, timber and firewood that could supplement FO and WCA incomes;
- vaccination programs for livestock of members of the FOs and WCAs in conjunction with government agencies and private companies;
- agricultural extension programs to inform members of appropriate crop varieties, fertilizers, weedicides and pesticides in conjunction with different commercial companies;
- programs for women, etc.

While not strictly relevant to water management, these ancillary activities are of great importance in the crafting process: they have limited goals that are relatively easy to achieve and provide the basis for building the confidence of members to tackle more difficult and contentious issues. Their value as an institution-building mechanism should not be overlooked.

PROGRESS TOWARDS EMPOWERED FARMER ORGANIZATIONS IN SINDH

To what extent the process of empowerment of FOs has occurred is a matter for some debate. Perhaps it is best characterized by early teenage years: the child is still growing and is not fully mature, while the parent is struggling to deal with a range of new and complicated demands that it has not faced before.

Legal and Technical Progress

From a strictly mechanical point of view considerable progress has been made which may be equated in our analogy to the physical growth of the child. Farmer Organizations, and their constituent Watercourse Associations, now exist. They have by-laws and have been officially registered so they are legal entities. They have office bearers and a general membership who have undertaken responsibilities to date to the best of their abilities. They have collected membership fees, have established bank accounts, have accounted to the membership for income and expenses, and they have had technical training in a wide range of subjects.

For its part the government has passed the SIDA Act defining the new structure and describing the basic responsibilities and obligations of SIDA and the Area Water Boards. The Government has registered the organizations, and has approved regulations that define the responsibilities and obligations of these organizations.

Both sides have agreed to the documents that will facilitate formal transfer of authority from government to the FOs for operation and maintenance of the secondary canal system.

From the mechanical perspective perhaps only one more thing remains incomplete, which is the official approval of the Government of Sindh for the implementation of the transfer agreements giving the FOs the legal right to undertake operation, maintenance, fee assessment and collection of water charges.

The pending final approval of the transfer process has created an awkward situation. FOs have received the technical training necessary to undertake proscribed tasks but they cannot undertake these tasks in practice. Because of this, it is not possible to make an independent judgement as to whether the FOs can actually achieve what is hoped and expected from them. It is a bit like a young teenager who has been shown how to drive a car and then being told not to drive it as he is too young and has to wait till he gets the license.

But there is another side to this story: when the child is old enough to drive, will the parent really hand over the car keys? It remains to be seen in terms of this project whether both parties are really willing to go along with the transfer of management authority to FOs.

Supporting to Craft Farmer Organizations

At the end of this project it is clear that there is a long way to go before we can claim genuine empowerment of the FOs in the pilot project. While part of this is because of all legal conditions are not in place but mostly it is the continued lack of mutual trust between government agencies and the FOs.

From the FO perspective the government has not always encouraged their growth. They feel that the government has made use of traditional bureaucratic devices to delay each step in the legal process. Whether it has been in the development of by-laws, in the drawing up of registration agreements, in the formulation of transfer agreements, the FOs feel that there have been delays reflecting unwillingness of the government to provide the necessary legal set up. FOs claim that they were promised for months, if not years, that transfer would occur very quickly but it never materialized.

It should be recalled that transfer was actually granted in October 1997 during the first phase of this project through joint management agreement. However this was quickly withdrawn for several reasons. In

retrospect it probably was premature because not all details of how FOs would function had been worked out. But with a gap of 1 year between the two phases of the project and after 18 months of the project it is easy to see why FOs feel the government is not willing to decide quickly on their behalf.

There is also a concern of FOs that at times actions have been taken that were detrimental to FOs ability to function smoothly. There are anecdotal reports of canals being given less water after the FO was formed or getting longer periods of closure during rotations. There are anecdotal stories of rival organizations being promoted that aim at splitting the integrity of newly created FOs.

From the perspective of SIDA staff there are also suspicions. They are reported to feel that FOs are not as democratic as they claim. The FOs will not be able to overcome problems of water distribution inequity and they will continue to underreport the irrigated area and therefore underpay irrigation fees, and they will continue to try to get more water than their fair share into secondary canals.

SIDA views the FOs as a threat to their power and authority. They are concerned that FOs will try to manipulate joint meetings to their advantage, and that ultimately they will lose control over the system that they feel is theirs and which they have had responsibility for over several generations.

In reality both sides are probably legitimate in their suspicions. But this hardly matters because if there is mutual distrust, irrespective of whether the reasons are right or wrong, the suitable atmosphere for crafting a new and sustainable institution is not present.

Under these circumstances empowerment cannot occur because the win:win condition has not been achieved. If neither side trusts each other then there is little scope for the type of approach that parents have to take, to let their children make mistakes, to help them learn from mistakes, and to guide them to become stronger and more independent in future.

It is unfortunate that as this project comes to a close we cannot test the viability of the newly created FOs in the first stages of independence, by helping them when things go wrong and by sharing their sense of achievement when things go well.

CONCLUSIONS

The Farmer Managed Irrigated Agriculture Project in Sindh has shown that despite a lot of initial skepticism it has been possible to establish farmer organizations that can sensibly address complex issues related to irrigation management. Further, the FOs have been able to discuss these issues with a wide range of agencies including SIDA authorities at Provincial and Area Water Board level.

However, full transfer of responsibility did not occur during the life of the project and it is impossible to come to any clear conclusion about the sustainability of these FOs.

The lack of formal transfer of responsibilities to FOs means that they have not been able to put into practice the skills they have learned through the project, ranging from water measurement and crop-based assessment to financial management and the development of business plans.

But this does not mean the project has failed. It would be naïve to think that such dramatic changes in responsibility of water management at secondary level would come easily or quickly.

On the government side there is a strong and well-established bureaucracy that has proven time and again its ability to resist change. There is a tradition in irrigation development that favors a paternalistic, top-down approach to water management, and a genuine concern for loss of power and authority if FOs become strong and powerful. It is therefore not unexpected to find the agency apprehending its own weakening and loss of identity to resist the changes inherent in PIM approach.

Farmers are not a homogenous community. There is much inequity and power struggle in rural areas. Access to and control over water is a powerful weapon in this struggle. To expect rich and powerful interests to accede to the desires of the disadvantaged is unrealistic.

From a distance it seems that the focus of the project has been one-sided. There has been too much emphasis on the development and strengthening of the FOs and not enough attention to the needs and concerns of SIDA. With this imbalance in emphasis they naturally have little interest in providing the type of nurturing and sympathetic environment which is necessary to lead to stronger and more empowered FOs.

The seeds have been sown, and perhaps in the next effort there will be more concentration towards the needs and aspirations of SIDA to make them partners in progress rather than potential adversaries. We would like to see a future where both sides are equally willing and capable of making the type of changes envisaged by PIM to become a reality.

REFERENCES

- Bandaragoda D. J. and Gaylord V. Skogerboe,. 1994. Research Inputs for an action program on participatory irrigation management in Pakistan. Paper presented in National Conference in Islamabad. October 2-6.
- Giddens, A. 1979. Central Problems in Social Theory. Action, Structure and Contradiction in Social Analysis. Barkeley: University of California Press.
- Merry D. J. 1996. Institutional Design Principles for Accountability in Large Irrigation Systems. Research Report 8. Colombo: International Irrigation Management Institute (IIMI).
- Starkloff, R. 1999. Notes distributed in the one-day workshop with IIMI staff. Participatory Discourse and Practice in a Water Resource Crisis in Sri Lanka. In Assessing Participation: A Debate from South Asia, edited by Bastian, Sunil and Nicola Bastian. Delhi: Konark Publishers.
- Starkloff, R. 1996. Participatory Discourse and Practice in a Water Resource Crisis in Sri Lanka. In Assessing Participation: A Debate from South Asia, edited by Bastian, Sunil and Nicola Bastian. Delhi: Konark Publishers.
- World Bank. 1997. Staff Appraisal Report, Pakistan National Drainage Program Project. Rural Development Sector Management Unit, South Asia Region. Report No.15310-PAK.
- World Bank. 1994. Pakistan Irrigation and National Drainage: Issues and Options Agriculture Operations Division, Afghanistan, Maldives, Pakistan and Sri Lanka Department South Asia Region, Report No. 11884-PAK.

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