THE CONCEPT OF PARTICIPATORY IRRIGATION MANAGEMENT

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ABSTRACT

The inefficiency of the public administration, and the market failure in managing water resource, demand new organizing and managing systems to face a performant irrigation policy. Users' involvment in managing water resource, is the most suitable solution to this kind of problems; to this purpose, Spain, Usa, Australia and the developing countries are an example. Many advantages stem from farmers' involvment, namely: a direct knowledge of the area specific needs, an easier cost control, a higher flexibility in different activities and so on. For a good result to be gained, this organizing system needs a strong commitment, both on private and public sides, as for training and informing operators.

RÉSUMÉ

Le manque d'efficacité dans le secteur public et l'échec du marché pour ce qui est de l'administration de la ressource en eau imposent de nouvelles formes d'organization et de gestion pour faire face à une politique performante de l'irrigation. La participation des utilisateurs à la gestion des ressources en eau s'avère la solution la meilleure à ce type de problèmes; l'Espagne, les Etats Unis, l'Australie et les Pays en voie de développement sont un exemple. Les avantages de la participation des agriculteurs sont nombreux, notamment: la connaissance directe des exigences specifiques du milieu, la limitation des coûts, la souplesse des différentes activités et ainsi de suite. Mais, un tel système d'organization pour obtenir un bon résultat, demande un engagement important, aussi bien public que privé, en ce qui concerne les activités d'entraînement et d'information de tous les opérateurs.

INTRODUCTION

Around the world, countries that once promoted more government involvement in irrigation management are adopting new policies that do just the opposite: creating incentives for farmers to take over the management of operations and maintenance, while government agencies focus on improving the management of water at the main system level. Is this just another management fad?

Will the pendulum that is now swinging towards greater management control by farmers soon swing back the other way, towards greater state control? There is very strong evidence that the current "fad" of participatory irrigation management, or PIM, is here to stay. Governments cannot do everything, and there are some things that they are simply not very good at doing. Farmers who depend on irrigation water for their livelihoods have the strongest incentive to manage that water very carefully. No public sector agency could every match the discipline that farmers impose on themselves when they manage their own irrigation systems. One of the most impressive examples of PIM has been in Mexico where the government adopted a new water policy in 1989 which included a resolve to transfer large-scale irrigation districts to user management. The success of Mexico's program on irrigation management transfer has proved inspiring to several other countries, and has in large part served as the core model for EDI's training program on PIM. In Mexico, the government adopted a new policy (1989) and enacted a new water law (1992) to transfer management of large scale irrigation systems to water user associations. About 2/3 of the country's 3.2 million ha of government managed systems has so far been transferred under this program.

In Turkey, a similar policy of irrigation management transfer was launched in 1993. More than half the systems administered by the government in Turkey have already been transferred to local user associations.

Most of the so-called "developed" countries adopted PIM policies some time ago, as a matter of fiscal necessity. Australia, the United States, Japan, and Spain are just some of the countries where irrigation management has largely been transferred from government agencies to the control of the users themselves. In the United States, for example, the government has promoted the management turnover of irrigation systems which were built and operated by the Bureau of Reclamation. Individual farms have become members of large irrigation districts, and the engineers who now operate the canals and distribute water to each farmer are the employees of the farmers whom they serve. Farmers in developed countries enjoy high levels of education, and strong support services through both the private market and the public sector (e.g., agricultural extension services). Does a management approach that works well in a developed country setting have any relevance to developing countries where literacy rates may be low and support services unreliable? We suggest that participatory irrigation management may be even more important in a developing country context, for the following reasons:

- Cost: there is a very high financial cost, and a social cost, involved when government agencies assume irrigation management functions which farmers could otherwise handle themselves;
- Incentives: irrigation users have stronger incentives to

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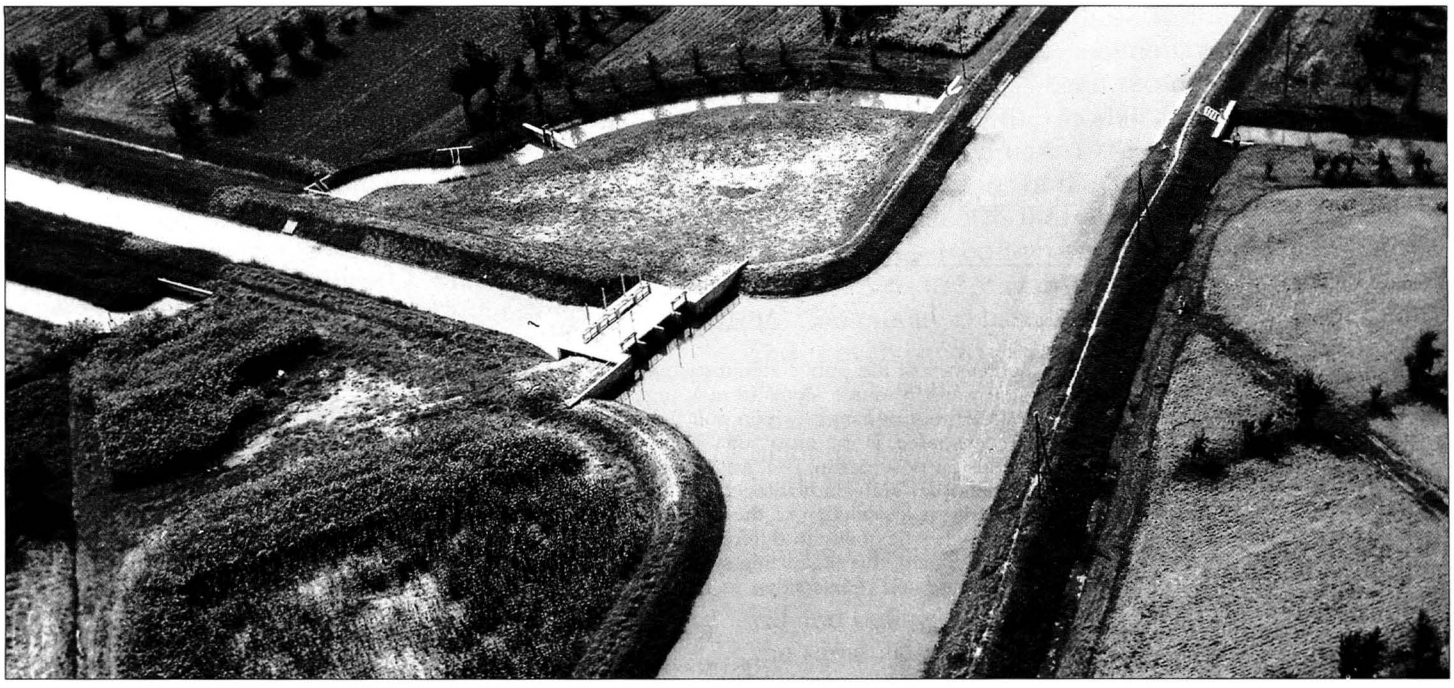

manage water productively than does a government bureaucracy;
• Efficiency: when management is decentralized to users, they can respond more quickly to problems or changes in the system.

Definition of PIM

Participatory irrigation management (PIM) refers to the participation of irrigation users — the farmers — in the management of the irrigation system. It does not refer only to the tertiary level of management, nor does it refer to merely consulting with farmers. The concept of PIM refers to management by irrigation users at all levels of the system and in all aspects of management. This is the simplicity of PIM, and also its flexibility. We are not suggesting that one style of PIM is appropriate for every situation, that what works in Turkey will work in Egypt. But we are suggesting that management by the irrigation users, rather than by a government agency, is often the best solution. Instead of an initial assumption that irrigation management requires a strong public sector role, the PIM approach starts with the assumption that the irrigation users themselves are best suited to manage their own water.

"Userism"

We may distinguish three basic types of irrigation management. One type is by the public sector, such as an irrigation department. Another type is by a private entity, such as a water company selling water from a tubewell. A third type is through a user's organization, such as a water user association. Management control by the users can be called "userism" — a particular form of privatization where the private "owner" is not an individual but a group of irrigation users who share a common interest in the management of their irrigation resource. In the cases of irrigation userism with which we are familiar, this user group is established as a not-for-profit entity. "Userization" is the process whereby management is transferred from a public sector agency to an association of users.

A new role for Irrigation Agencies

When irrigation management is in the hands of the users, the government continues to play a vital role in regulating the irrigation sector, and providing management support services. The division of management responsibilities between government and the water users can be visualized as a continuum. In some countries, the government agency manages the irrigation distribution system down to the very smallest canals. In other countries, such as Mexico and Turkey, the boundary between government and users is generally at the secondary canal heads. And in some countries, such as the US, France, and Japan, farmers may be responsible for managing the entire irrigation systems up to, and sometimes including the headworks.

How much PIM?

Is participation always necessary? Doesn't participation interfere with efficient management in some circumstances? Do we have to allow farmers to come into our board rooms and advise us on how to do our jobs? Aren't there some natural limits to what irrigation professionals should be responsible for and what farmers should become involved in? A good rule of thumb is

that a participatory dimension is important to all management functions. Perhaps there are exceptions to this general rule, but within the field of irrigation management, it is difficult to imagine any. This does not mean that a farmer's council has to be consulted before any decision is taken. If the water availability is so small that only 40% of the demand can be met along a given canal, do farmers need to be asked if they want the water? However, the farmers who receive only 40% of their demand do need to know about overall water availability so they can plan their response, and perhaps suggest better ways of utilizing their reduc ed share.

What kind of PIM?

Participation refers to a continuum of involvement in management decisions. One meaning of "PIM" is that the irrigation users have total control and responsibility over the operations and maintenance of part or all of the irrigation system. Another meaning of PIM may be that a farmer council plays an advisory role, with real power remaining in the hands of the irrigation agency.

THE RATIONALE FOR PARTICIPATION

Why participation? Another question might also be asked: "Why should the government be involved in irrigation?" Clearly, there are investments that only the government can make, or where the government has a definite advantage vis a vis farmers, even very well organized associations of farmers. Construction of dams and barrages, for example, or large canals, would be extremely difficult for farmers to handle. Governments provide us with available institutional resources —departments, agencies, trained staff, etc. — which can be used to get things done. Why re-invent the wheel and ask farmers to organize their own arrangements for building as dam?

• Farmers have some *comparative advantages.* They have direct incentives to manage irrigation water in a productive and sustainable manner; they offer an on-the-ground presence that even the most dedicated off-site agency staff cannot equal, and they have an intimate knowledge about their fellow irrigators. The logic of the PIM approach is that both governments and farmers have separate comparative advantages. At the moment, governments are trying to do much more than they can do well. What are the advantages that management by farmers — by the users — can offer?

• *Improved design, construction, and O&M.* When farmers are directly involved in the design process, whether for new systems or rehabilitation of old ones, they will provide useful design input and they will come away with an understanding of the design logic of the system they will be managing. During construction, farmer input has the functions of quality control (ensuring design standards are met), cost savings (through guarding against needless spending, and substituting some costs with farmers' own labor), and construction knowledge. Knowing how the system is constructed will help in repairs later on. The advantage of farmer inputs into O&M, either as direct managers or as the overseers of technical managers, has been discussed.

• *Lower costs to government.* Cost savings to the government irrigation agency is often the driving force behind irrigation policy reforms. Government run systems are chronically short of maintenance funds leading to deteriorating systems and more difficult operation. Management transfer of major levels of the system to users offers government agencies an escape from this vicious cycle. While some critics see this as merely passing the costs on to farmers, the picture is not usually so bleak. Evidence from Mexico and Turkey suggest that farmers can manage better and more cheaply than their government predecessors. Thus, both farmers and government can benefit from these cost savings; farmers can enjoy better service, and cost savings; the government incurs less management cost and can then afford to improve service in the main system.

• *Social capital.* The organizations that farmers establish for managing their irrigation systems constitute a form of social capital that can have spin-off effects in other aspects of social and economic life. The network of contacts among agency staff and the water user organization leadership, for example, can bring the farming community into closer touch with related services, e.g., credit, educational opportunities, or even political access. And the skills that farmers learn through their experience with their water user organization — accounting, budgeting, planning, organizing — constitute a set of knowledge that can be used in many other productive endeavors.

HOW TO IMPLEMENT PIM

The opportunities for participation are different in each phase of the project cycle. Much of the emphasis on PIM has focused on participation in O&M, and particularly in the recovery of O&M service fees on behalf of the irrigation agency. While this aspect of participation is of great practical importance, there are many ways other aspects of irrigation management where participation can be incorporated. These include: (1) participation in irrigation project identification, planning, and design; (2) participation in system layout and construction; and (3) participation in project monitoring and evaluation. In short, any aspect of irrigation management can have a participatory dimension. We have discussed *why* participation us important. In this section we will consider how to achieve it: *how* to implement

participatory irrigation management. There is no recipe for this; indeed, the process of formulating a strategy that fits the specific features of any given country is the first — and ongoing — step. There are some common issues to consider, however, of which we will discuss two: (1) creating an enabling environment, and (2) organizing methods.

• *Creating an enabling environment.*

For participation to work, the government, which is the incumbent power broker in most national irrigation sectors, must be willing, and preferably eager, to make it work. Participation is really a political issue; it involves giving up power to local entities (e.g., water user organizations), and dealing with those farmer-controlled entities in a cooperative, rather than bureaucratic manner. These features of participation are normally considered as a "cost" from the perspective of vested interests in the government irrigation bureaucracy. But there are also some attractive benefits from this same perspective: The financial burden on the government agency is reduced, political pressures on technical staff are often reduced, and greater management attention can be given to the large infrastructure without the distraction of operating and maintaining the lower ends of the irrigation network. The first step towards creating an enabling environment is *political will.* Once the government is willing, what next? Some of the factors to consider are:

(a) Is the physical design "user friendly" and if not, can it be enhanced to render it more manageable?

(b) Are the policies in the irrigation sector conducive to user management? Are there incentives to the agency staff to work with farmers, and are there incentives to farmers to accept the investments of time and energy that management entails?

(c) Do the irrigation staff have the skills and understanding needed for dealing cooperatively with farmers in a management role? Do farmers have the skills for handling their own affairs?

• *Organizing user groups.*

Are specialized social organizers needed, or can existing agency staff be trained to do the job? This is one of the most frequently asked questions relating to the participatory approach, and there is no quick answer. In the Philippines, a special cadre of social organizers was recruited and then trained in both organizing as well as in irrigation management. In Mexico, the emphasis was on extension and training of farmers to understand the implications of management transfer, and to help them establish water user organizations.

Specialized organizers were not used, but existing fame producer associations (e.g., tomato growers association), where were already functioning organizations, helped their membership establish a separate water user organization. In some parts of India, NGOs have been invited to work with both farmers and irrigation department staff to negotiate agreements between the two parties and help arrange the legal procedures fo establishing water user groups.

In other parts of India, irrigation engineers are invited to volunteer for new assignments as organizers, and are given special training for this purpose. The question of how best to help farmers organize themselves into water user groups must be answered according to the specific context of the local area. Are there existing farmer associations that could help launch a new organization? Are there NGOs that are familiar with agriculture and (preferably) irrigation? Is there an active extension service that could be pulled into the irrigation sector on secondment? Is there adequate training capacity to train irrigation staff to do organizing work? Is there an interest within the Irrigation Department to take on the organizing role, or is this viewed as a distraction?

THE NEED FOR TRAINING

At both phases of a PIM program — creating an enabling environment, and then actively organizing user groups — there will be a strong need for training. Both agency staff and farmers will need to learn new skills and adopt new attitudes.

The behavioral changes which PIM implies, for both farmers, who must now become the managers, and for the agency, which must now become more "client-oriented", are big changes. Are the farmers prepared for their new roles?

Do they understand how their new association will work? Do the agency staff understand and accept their new role which gives them less direct power over farmers? The training needs will be different in each country, of course, but it is probably safe to assert that for any country adopting PIM, there will be an important new set of training needs. These can be summarized as follows:

for policy makers - Awareness training to become familiar with the concept of PIM and the supporting policies it requires;

for mid-level officials - Awareness training, with detailed information about best-practices from countrie that have adopted PIM;

for agency/NGO staff - Details on organizing and com munication skills, legal and financial aspects of establishing WUAs, etc.;

for WUA leaders - Organizational and financial management.

What are the specific details of these training needs, and what institutes or organizations can provide this training in each country? These are the issues that EDI and MAIB have joined forces to address in the workshop on "Capacity Building for Participatory Irrigation Management". ●