

# **Institutional Reforms for Agricultural Water Management<sup>1</sup>**

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#### **1. NEED FOR WATER SECTOR REFORMS**

Most governments today are faced with a number of challenges in water management for agriculture. The water and agricultural sectors are in extreme competition for financial resources with social sectors, such as health, and education. The agricultural prices and profits are declining, the irrigation and drainage schemes are financially un-sustainable, there are disputes amongst various sectors and users regarding water rights and distribution, and environment has worsened as a result of continued irrigated agriculture in several parts of the world, and increasing trends of soil salinity and waterlogging have emerged. The governments find it extremely difficult to finance required operation and maintenance costs of the systems, resulting into increased water competition and potential for conflict. Poor maintenance often results into inequity in water distribution, unreliable water supply and huge water losses, which promote disputes amongst water users and sectoral interests. The cost of providing irrigation and drainage services has risen overtime, while the productivity and profitability of such schemes have tended to decline. The users on the other hand, due to declining productivity and profitability of irrigated agriculture, find it difficult to pay for services, and the cost recovery has tended to decline, leading to poorer and often neglected O&M of systems. These trends have accelerated the infrastructure deterioration processes.

The governments around the globe have realized that the “business as usual” strategy of poor performance-poor productivity-poor cost recovery-poor O&M- poor performance needs to be reversed, and have devised programs and policies to reform water management. Several countries around the globe have, therefore, resolved for reforming water management in order to a) optimize socio-economic benefits and environmental costs, b) improve cost recovery and ensure financial sustainability, c) balancing sectoral needs for limited financial resources, and d) improving the performance of state managed irrigation and drainage systems.

#### **2. IRRIGATION AND DRAINAGE SECTOR REFORMS**

The reforms have been devised in several countries to achieve one or more outcomes of the following:

- **Integration** between policies, laws, organizations
- Inter and intra-sector **coordination**
- Environmental and resource **sustainability**
- Principles of **‘pay for service’**; **‘polluters pays’**; **‘subsidiarity’**, etc
- Users **participation** in policy setting, governance, management, financing, and increased accountability towards users
- Financial viability and sustainability, like budgeting and fees based on **actual costs of management**
- Introducing the concepts of **public utilities and water supply services**

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### 3. PARTICIPATORY IRRIGATION AND DRAINAGE MANAGEMENT

It has been demonstrated that the reforms that address fundamental and real issues, and are designed, implemented and monitored through the involvement of the key stakeholders have been more successful. Where irrigation uses the majority of water in a river basin, without viable participatory management of irrigation systems, effective water resources management will not be possible. Participatory irrigation management (PIM) means that water users associations (WUA) take over primary governing responsibility and authority over:

- Water delivery and drainage within irrigation systems,
- Maintenance and repair of irrigation infrastructure,
- Financing the costs of irrigation, and
- Upgrading and extension of irrigation systems.

PIM means that WUA will take the lead role in managing and repairing their irrigation systems. It means that WUA will take the lead role in promoting and guiding the rehabilitation, upgrading, and extension of existing irrigation systems and the construction of new irrigation systems. Hence, PIM includes both management and development of irrigation systems. PIM does NOT necessarily mean that farmers will have to pay for all the cost of irrigation management and development. Some costs, especially for improvement and construction, may be shared between farmers, government and the private sector. In addition, the governmental agencies move towards regulation, and ensuring delivery of support services to WUAs rather than direct water resources management.

If WUA need financial, technical or other assistance, the government or private sector should provide it, to the extent possible. But in the future, PIM generally requires that all assistance to irrigation systems will be provided in ways that encourage—not discourage—local investment by the WUA. Assistance will be provided in ways that build the capacity of the WUA to be self-reliant and that avoid creating dependence of the WUA on the government. Hence, PIM involves both empowerment of water users and a new partnership between the government, water users, and the private sector.

### 4. ESSENTIAL PRINCIPLES OF PIM

The following are four essential principles of PIM. A distinction is made between what are thought to be essential aspects of PIM versus discretionary aspects that are subject to variation locally.

**a) *Empowerment of water users*** This means that all water users served by a common irrigation system select water users association (WUA) leaders, establish the WUA, agree on its constitution and rules and approve its basic policies. It means that the WUA is established as an independent legal entity with the full decision-making authority to manage the irrigation system, based on the principles of 'one irrigation system = one system of management.'

**b) *WUA defines the water service and selects its service provider*** WUA leaders and members agree on what kinds of water services will be provided by the irrigation system and how they should be provided. The WUA has the right to choose who will provide its irrigation services and to negotiate the terms and conditions for service provision. It appoints and authorizes the service provider to perform its functions.

**c) *Partnership and mutual accountability*** between the service provider, WUA leaders, members of the WUA, government and other service organizations. This new partnership is based upon the norms of transparency, negotiated service agreements, mutual accountability, joint

monitoring and auditing, and cost sharing. The service provider serves the WUA leaders, as authorized. If not, service providers can be removed from their position. The WUA leaders follow the will of WUA members, as authorized by them in elections and meetings. If not, WUA leaders can be removed from their offices. The WUA, government and other organizations interact with each other as partners, not masters and servants. Arrangements for services, training, etc. are formalized by agreements between the parties concerned.

**d) Demand-driven support system based on cost sharing** – The government withdraws from direct management of the irrigation system and focuses on regulating the water sector, providing assistance and support services to WUA and building capacity in the WUA. New arrangements are created to provide support services based on requests from WUA and the principle of cost sharing.

## 5. INTERNATIONAL BEST PRACTICES OF PIM

International experience suggests that the following practices for PIM produce positive results, in general.

- a) PIM is based on a strong and **clear policy and legal framework**, with **strong political support** from the highest levels of government. Water users associations (WUA) have **clear legal status and water use rights**.
- b) Full **decision making authority** for irrigation system management is transferred to WUA.
- c) Water Users Associations **federate** up to the main system level in a phased manner, consistent with the principle of 'one irrigation system = one system of management'.
- d) The irrigation agency adopts a **new partnership** relationship with WUA's, which is based on requests from WUA's, mutual agreements and arrangements to ensure mutual accountability.
- e) The irrigation agency undergoes a broader water sector strategic planning process which results in a **restructuring of government agencies to take on new roles**, such as reducing its role in managing irrigation systems and adopting new roles of providing technical support services, regulating water resources, environmental management, monitoring and evaluation, etc.
- f) Because of the restructuring and identification of new roles, the **irrigation agency does not resist PIM**, because its staff know that the agency will have new, interesting roles to play in support services, regulation, etc.
- g) PIM includes **restructuring of how the irrigation sector is financed**. The principle of cost sharing is adopted. Government expenditures are re-designed in such a way that they stimulate local matching investment.
- h) During the PIM process, the irrigation agency focuses primarily on **building the capacity of WUA**. Rehabilitation and modernization of infrastructure, if needed, is organized according to the principles of **cost sharing and empowerment** of WUA. The government adopts a new strategy for financing and implementing rehabilitation and modernization that is consistent with PIM principles and financial restructuring.
- i) The government adopts a parallel program to **develop the commercial value of agriculture**, through new methods of group provision of inputs, marketing and agri-business, which are consistent with the principles and institutional arrangements set up by PIM.

## **6. IMPACTS OF PIM**

The past evaluation of reforms in several countries shows that users' involvement in the management of irrigation and drainage has resulted in

- a. Positive or no impact on O&M performance
- b. Reduction in agency staff costs, if it was the objective of the reforms
- c. The costs of water delivery for farmers tend to increase if the governmental subsidies are eliminated
- d. The Irrigation Service Fee (ISF) assessment and collection rates improve
- e. The water supply becomes more reliable and equitable
- f. WUAs tend to diversify their income sources, as soon as they start achieving successful water management

## **7. COMMON ELEMENTS OF SUCCESSFUL REFORMS**

The most common elements of the successful water reforms include:

- Strong and consistent political will for reforms;
- Clear inter-sector, and intra-sector water rights compatible with water distribution infrastructure
- Legal and political recognition of stakeholder organizations
- Clear benefits and incentive mechanisms for all stakeholders
- Pro-active support services for user organizations
- Periodic externally managed financial audits
- Possibility of consolidating stakeholder bodies at higher levels, like system and country level federations and networks of WUAs