

Irrigation Management Transfer: International Issues and Results

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THE GREEN REVOLUTION was a technological and managerial revolution which consisted of a clear set of essential elements, including new seed varieties, fertilizer, pesticide, and a reliable water supply. If all elements were implemented together the result would be a dramatic improvement in agricultural productivity. If one or more of the elements were missing the revolution would not take place. It was a package deal. Similarly, the irrigation sector in developing countries is in need of a management revolution which consists of the essential elements needed to manage irrigation systems in an integrated way. These elements are a clear and sustainable water right, clearly defined responsibilities and incentives, appropriate and functional infrastructure, and adequate resources. If one or more of these elements is missing the needed irrigation management revolution will not happen.

Irrigation management transfer, or turnover, is being planned or implemented in many countries in Asia, Africa, and Latin America. We define it as the reduction in the role of nongovernmental organizations (NGOs) such as farmer groups in irrigation management. Governments are promoting management transfer largely because of their inability to finance the cost of irrigation management, their inability to recover the cost from farmers through fees, their poor performance in irrigation management, and a rising expectation about the capacity of farmers to take over the management of irrigation systems, either fully or partially. Management transfer is not likely to produce the kind of management revolution needed in the irrigation sector unless it consists of an integrated package of water rights, clear responsibilities and incentives, functional infrastructure and adequate resources.

The transfer of management roles to farmers is being done through various strategies in different countries. The introduction of an irrigation service fee in Indonesia, the Philippines and Mexico shifts responsibility for paying for irrigation from the government to the users. In the Philippines, the government provides management contracts to Water Users Associations (WUAs), still paying part of the cost, but transferring the role of management to farmers. In Indonesia, the government has a program of providing direct grants to villages which in turn use the funds for improving their irrigation systems through local labor. In the USA, Mexico and Colombia, farmers elect boards who govern and hire professional staff to do routine management. In China, villages provide franchise contracts to pump irrigation teams. In Indonesia, entire management for small-scale irrigation systems is being transferred to farmer organizations. Management of subsections of irrigation schemes is being transferred to WUAs in Mexico, the Philippines, China and Sri Lanka.

This often involves federating WUAs from tertiary to distributary levels. In Chile, New Zealand and Bangladesh, irrigation systems are sold outright to WUAs or other NGOs.

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All of these strategies involve some degree of transfer of management to farmer organizations. Chile, the USA and New Zealand are perhaps the most extreme cases where full rights and ownership of irrigation systems are transferred. Most cases of turnover are only partial. The government continues some management roles, such as retaining subsidies for irrigation or continuing to manage the diversions and main canals of large systems. Most cases of turnover do not include the full set of essential elements needed for the management revolution. The elements which are most often lacking are a clear and enforceable water right, clearly defined responsibilities and management incentives in the WUA and adequate resources to finance sustainable irrigation. However, we cannot expect irrigation management transfer to succeed if these elements are not part of the change process. Local conditions which make turnover more likely to succeed include profitable agriculture, high socioeconomic dependence of farmers on irrigated agriculture, high hydrologic dependence of agriculture on irrigation, lack of severe social divisions and existence of local institutions and skills for irrigation.

In summary, experience to date with irrigation management transfer seems to be producing the following lessons:

- * When management is transferred to farmers, they tend to place a higher priority on cost efficiency than do government agencies.
- * Farmers often seek diversified sources of financing irrigation in addition to payment of water fees (such as side line enterprises in China or contracted services in Colombia).
- * The emphasis on organizing and motivating farmers often tends to neglect the need for greater clarity about rules and rights of farmer organizations.
- * Turnover processes which do not involve farmers in decision making or investments in infrastructure improvements do not enhance local self-reliance of farmer groups.
- * Governments often fail to clearly define their future roles after turnover and redeploy staff accordingly. This can result in lower-level bureaucratic assistance to turnover and the continuance of placing agency staff in field operational positions even after turnover occurs.
- * Farmers tend to want full control over system infrastructure and operations before they are willing to fully finance irrigation.
- * Farmers often do not want complete withdrawal of the government in the irrigation sector. They are often still needed to regulate water allocation between irrigation systems along river basins, to mediate disputes, to provide technical guidance and support services.
- * Farmers are beginning to organize their own support services.