IWRM Action Hub

CASE STUDY

Morocco: Irrigation water pricing policy of large scale irrigation projects

In Marocco, rapid urbanisation has led to increased demands for quality and quantity of water resources. To meet the challenges posed by the growing water scarcity, Morocco has adopted an integrated approach to water resources management through mutually reinforcing policy and institutional reforms, including the adoption of a long term IWRM strategy. The key lesson is the importance of introducing economic incentives to water management.

Background

In Morocco, the consequence of increased industrialization and a rapidly growing population accentuated by a progressive shift from rural to urban living. This resulted in the growth of requirements for the quality and quantity of water resources, and their more intensive and comprehensive use.

In Morocco, there are approximately 7.7 million hectares of arable land of which 1.6 million ha are potentially irrigable (1.3 million ha of perennial irrigation and 300 000 ha of seasonal irrigation), water resources availability being the limiting factor. As of now, irrigation accounts for 88% of the water use compared to 8% for domestic use and 4% for industry.

The government policy in the agricultural sector has always favored investments in the irrigation subsector. These investments have accounted for more than 60% of the total public investments in agriculture since 1965. The goal was to put under perennial irrigation 1 mill. ha by the year 2000. This is referred to as the "million-hectare" policy.

There are both Small and Medium Scale (SMI) and Large Scale (LSI) irrigation systems. The SMI projects range from few to several thousand hectares. They are mainly traditional systems some of which have been developed for centuries.

Actions taken

A number of reforms in the agricultural sector have taken place to liberalize agriculture and food prices, reduce subsidies and restructure public expenditures in the sector. To meet the challenges posed by the growing water scarcity, Morocco has adopted an integrated approach to water resources management through mutually reinforcing policy and institutional reforms.

The major policy reforms adopted are the following:

1. The adoption of a long term strategy for IWRM. The National Water Plan is the vehicle

for strategy implementation and will serve as the framework for investment programs until the year 2020;
2. The development of a new legal and institutional frameworks to promote decentralized management and increase stakeholder participation;
3. Introducing economic incentives in water allocation decisions through rational tariff and cost recovery;
4. Taking capacity enhancing measures to meet institutional challenges for the management of water resources; and
5. Establishing effective monitoring and control of water quality to reduce environmental degradation.

In addition, Morocco has adopted an “interventionist” type of irrigation policy for LSI systems development to promote the rational use of water resources and to overcome the constraints related to the situation of its peasants. The framework of this policy is defined by a variety of laws grouped in the “Code of Agricultural Investment” (1969).

This Code is regarded as a contract between State and farmers to build the national economy through irrigation development. The state pays for the dams, the irrigation network and necessary on-farm development. It provides credit, selected seeds, fertilizer, farm equipment etc. Finally, it guaranties the prices of certain crops through contracts.

In turn the farmer is obligated to farm his irrigated land in the national interest, to follow the norms imposed for this hydraulic sector, and to r the State 40% of the investment costs and 100% of operation & maintenances costs through a land improvement tax and volumetric water charges.

Outcomes

The implementation of pricing reforms requires a holistic approach. In Morocco it is part of a holistic approach called LSI Improvement Program with the main objectives of efficiency, cost effectiveness and sustainability of the large-scale irrigation subsector, divided in three major and interrelated areas:

1. The effect of fixed producer prices, at national level, for crops such as sugar beet, sugar cane and soft wheat prescribed in the mandatory cropping pattern has been often used as an argument to seek homogeneous water charges across LSI perimeters. This has led to the adoption of charges used in the existing projects that are far below those computed according to the law for new projects. It was difficult to make up for these distortions later on since the only possible increase of water charges provided by the law is indexed on inflation.
2. The application of the provisions of the Code concerns the recovery of the pumping charge. The recovery of this charge became effective in 1983. In many instances feasibility studies have often favored options of using the river as a conveyor of the water released from the dam and pumping it at appropriate sites to supply water to irrigation sectors instead of building a conveyance canal. In these situations as per the Code, energy costs are not recovered from the farmers as pumping is considered a design option. Energy bills are then paid by budget transfers to the ORMVA.
3. A comparison between 1979-80 and 1995-96 shows that prices of fertilizers, seeds and treatments for sugar beet have more than trebled, while the producer price has been multiplied by a factor of 2.41. As a matter of fact, sugar beet and sugar cane producer prices have been formally “liberalized” only in 1996. But, the prices

negotiated between the producers and the sugar factories are kept almost at the same level to avoid increases in the consumer prices or in the budgetary burden for compensation.

Lessons Learned

At present, most regional irrigation and agricultural development agencies (ORMVA) still need Government financing to close the gap between billed charges and actual direct costs of water.

An in-depth water pricing study has been carried out. As irrigation water pricing is being revised in response to water saving requirements and reduced budget transfers to ORMVAs.

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