Rainfed Rural Development in Morocco

Before 1978, Morocco’s agricultural development strategy concentrated on irrigation, bypassing the country’s 1.2 million rainfed farmers. Four Bank-supported rainfed pilot projects for agricultural development were approved between 1978 and 1982. A recent OED audit* finds that benefits did flow out of the projects, but were not commensurate with the resources invested. Many of the problems encountered by these projects could have been avoided had financial and drought risks been assessed more adequately.

Background

Agricultural development in Morocco has been dominated by investment in irrigation for more than 70 years. A plan prepared in the 1930s to irrigate a million hectares in the plains still has a strong influence on agricultural investment. Rainfed agriculture was largely ignored until the 1970s.

In 1977, one year before the first of these projects was approved, two-thirds of Morocco’s population was rural, and virtually all of Morocco’s 1.2 million private land owners were rainfed farmers. Rainfed farms produced 76 percent of crop production by value, and almost all of livestock production, but only 18 percent of the agricultural budget was committed to rainfed agriculture and forestry, and 4 percent to the livestock sector.

The stimulus to redress this imbalance came from outside Morocco, primarily from the World Bank and FAO. Between 1972 and 1976, Bank dialogue promoted higher spending on rainfed agriculture in order to alleviate rural poverty, help conserve soil and water, extend the life of reservoirs, and lead to new investment in downstream irrigation. After some resistance, the government of Morocco agreed and the first Bank-supported rainfed project was approved in 1978. Total costs of the four projects amounted to $425 million, of which the Bank was to contribute $158 million.

The government urged the incorporation of social infrastructure components—rural roads, schools, health centers, drinking water systems, and market places—in three out of four of the projects. Only the Middle Atlas project retained a simple design, focused on livestock development.

The initiative proved ill-timed. Morocco’s Three-Year Austerity Plan of 1978-80, following severe financial difficulties in the mid-1970s, applied tough measures to cut back public investment and focused on the completion of ongoing projects. The government’s planned allocation to rainfed agriculture fell to less than 2 percent of its total commitment to agriculture—less than was needed for timely implementation of the Bank-supported projects that were soon to be approved.

Outcome

Design

The design of numerous project components was incomplete at approval, despite lengthy gestation periods. Complex designs were approved despite the misgivings of Bank regional staff. But this approach was consistent with mainstream thinking about rural development in the late 1970s. By the time Oulmes-Rommane was approved (1982), the Bank was beginning to understand the difficulties associated with complex area development projects, but the project’s design remained unchanged.

Implementation

Implementation was delayed almost throughout by shortages of local funds and organizational problems. The counterpart funding problems were foreseen prior to approval, but badly underestimated, and projects were approved without corresponding changes in design or financial arrangements. Six years of severe drought between 1978 and 1992 added to the difficulties faced by implementors.
As pilot actions, the projects were too large, and weak monitoring and evaluation (M&E) lowered their value as experiments. No time was built into the project designs for start-up activities, contributing most probably to the projects’ weak M&E performance.

Despite apparent problems, the projects were not formally restructured until after a mid-term review in 1985 and a special action program (SAP) in 1987, eight years after serious funding shortages were first experienced. Even then, the full potential of the SAP was not reached because the program was not fully communicated to the implementing directorates.

Overall, the projects succeeded more in providing economic and social infrastructure than agricultural services. When local funds were available, physical targets for roads, schools, and health infrastructure were frequently met. But these were development inputs, not outputs. Project components that served small farmers directly developed slowly, and the overall effect of the projects on farm incomes cannot be well established because too few data are available.

Institutions

The projects’ complex institutional arrangements, with three layers of coordination among up to eight agencies, worked surprisingly well because of effective working relationships between provincial directors of agriculture and provincial governors. Agricultural staff in each province became motivated to work responsively with farmers in their fields through the introduction of a modified training and visit system. This was an important change towards a client-oriented approach to agricultural extension, which has been sustained.

Technology

Many of the rainfed agricultural technologies with which the projects started were costly to introduce and maintain, and unattractive to resource-poor farmers. These were replaced by a few robust technologies, which spread because they were profitable: olive, fig, and vine planting on sloping land, and the introduction of new, higher yielding soft wheat varieties. Some new farming practices have been widely adopted to conserve soils, but the cost-effectiveness of the practices is unknown. Much of the planned reforestation was implemented successfully by contractors, which created employment but gave rural communities little stake in the results.

Subsequent Developments

Institutional reforms in research and extension services led to the initiation of the Agricultural Research and Extension Project in 1989. Drawing on lessons learned from previous rainfed projects, the project seeks to develop and transfer technology that is more responsive to rainfed farmers’ needs.

Other developments include the Second Forestry Project, which aims to develop better management systems for forestlands subject to livestock grazing, and a major study looking for ways to improve watershed management. A successor to agricultural structural adjustment loans supports land consolidation in rainfed areas, destoning of fertile lowlands, and hillside planting with fruit trees.