



A Holistic Approach to Farming Research

In Egypt, land productivity was improved by an IFAD project that created strong links between farmers, research and extension, and raised resource-use efficiency by integrating crops and livestock.

The governorates of Fayoum, Beni Sueif and Minia in Upper Egypt extend for about 200 km along the Nile. In this area, land productivity is low and the potential for bringing additional land into production is limited. The only options available to raise the incomes of rural people living in the area are to improve land productivity and intensify land use. This is what an IFAD project has done through a project consisting of three main elements: 1) agricultural research; 2) the dissemination of research findings through extension activity; and 3) the provision of credit necessary to adopt new technologies. The project established an innovative Farming System Research Unit (FSRU), which operated with a holistic approach. That is to say, the FSRU carried out research activities that were adapted to farmers' real needs and closely linked to extension delivery, and broadened its focus to include livestock – a relatively neglected area in Egypt.

Country:

Egypt

Direct Beneficiaries:

Small farmers, rural women, landless people

Results:

- The FSRU staff developed 13 farm models (two-year cycles) for intensifying agricultural production in the project area.
- The FSRU organized some 69 village meetings attended by 4,595 farmers and 79 extension workers.
- Farm demonstration packages for various crops showed an increase in land productivity ranging from 19 to 50 per cent.
- The rate of farmers' adoption of new technologies is above 80 per cent for the most important practices.

Main Lesson:

- Projects that increase agricultural productivity should also include marketing activities so that farmers capture the full benefit of additional production through sales.



BASIC INFO

Sources:

Agricultural Production Intensification Project – Project Completion Report (IFAD, 2006)

Project Name:

Agricultural Production Intensification Project

Project Starting Date:

1995

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WEB PAGES

IFAD operations

in NENA and CEN:

<http://www.ifad.org/operations/projects/regions/pn/index.htm>

IFAD learning notes:

<http://www.ifad.org/rural/learningnotes/index.htm>

IFAD case studies:

<http://rpr.ifad.org/node/692>
(username and password: "guest")

Background

Over 1 million households live in the contiguous governorates of Fayoum, Beni Suef and Minia in Upper Egypt. Sixty per cent of households are active in farming: 90 per cent of these are small farmers owning or operating on holdings of less than 3 feddan (1.26 hectares). In spite of the excellent fertility of the irrigated soils in the area, poor drainage and farming systems keep land productivity low.

In 1995, in order to improve the household incomes of poor farmers, women and landless people in the area, IFAD launched the Agricultural Production Intensification Project. The project design was based on the lessons learned from two previous IFAD-supported projects in the area – the Minia Agricultural Development Project (1982-92) and the Fayoum Agricultural Development Project (1992-98).

The Research Unit

The project aimed to bring a range of support services – research, extension, and credit – to about 540,000 smallholder households, as well as landless households and households headed by women.

The research component played a pivotal role. An innovative Farming System Research Unit (FSRU) was established to institutionalize extension/research linkages, make them operational, and carry out the annual research programme. The FSRU was intended to bridge the gap between centralized commodity research, on-farm trials, extension, credit and the farmers, and to raise the efficiency in the use of resources through closer integration of crops and livestock.

The FSRU was endowed with a small, highly qualified and well-motivated multidisciplinary team that involved the small farmers from the outset. At the initial stage, small farmers were given surveys to complete, which allowed the FSRU team to identify the main problems experienced by the project participants and to develop the most appropriate farm

models for intensifying agricultural production. In other words, the project adopted a holistic approach centred on the FSRU, which allowed the real needs of small farmers to be addressed.

Research Outputs

In the area of agricultural production intensification, the FSRU staff developed 13 farm models (two-year cycles). In the area of integrated crops and livestock, the staff developed a set of new technical packages that included: 1) cultivating high-nutrition clover mixed with ray grass; 2) planting fodder beet on canals and ridges of clover crop for animal feed; 3) producing silage made of clover; 4) producing silage from the stem of green maize or other green farm wastes; and 5) using urea-treated straw to improve animal nutrition, health and performance.

A third successful area of adaptive research and innovation for the FSRU was the Programme of Improving Productive and Reproductive Efficiency of Dairy Animals, which was articulated in three major fields:

- *Genetic improvement to achieve high-quality animal breeds.* FSRU acquired mobile ultrasound imaging machines for pregnancy diagnosis.
- *Fighting the diseases and parasites to which animals are exposed.* This was done through appropriate methods of prevention and treatment under the supervision of veterinary specialists.
- *Improved animal feeding.* FSRU developed an extension package to promote improved animal feeding in parallel with fighting diseases and genetic improvement.

Extension and Credit

Agricultural extension was the backbone of the project delivery system. The project team created a well-trained extension system that was supported with various facilities – office and training space, vehicles, field extension kits, effective technological packages, etc.

The coverage of the extension system

was broadened to include livestock extension, an area relatively neglected in Egypt.

Particular attention was paid to the recruitment and training of women extension agents in order to intensify contact with women beneficiaries. The project staff itself, including all FSRU staff, attended training programmes that also offered regular training in updated technology.

The project's credit component was intended to facilitate the adoption of existing and new technologies for crop and livestock production. Experience gained through various credit projects in Egypt indicate that at least 50 per cent of farmers adopting technical packages require credit in order to do so. The credit component was under the responsibility of the Principal Bank for Development and Agricultural Credit. Loans were made and disbursed mainly through an extensive network of village banks throughout the project area. The project established a credit line in the Principal Bank to enable it to provide loans to small farmers and landless people without collateral.

Replication and Scaling Up

The project objectives and design were slightly adjusted during implementation to reflect emerging needs and perceptions of the project's participants. This was the case for outreach to rural farmers of newlands and the landless. The major design features and the successful adjustments made were appropriate. In fact, both IFAD and the government of Egypt scaled up most of these design features and the lessons learned into a new project in southern Upper Egypt.

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