

Operational Research Project

The ORPs were initiated in 1974-75. It covered diverse topics like crop farming, mixed farming, integrated pest management, plantation crops, post-harvest technology, improvement of *diara* and *char* lands, land reclamation, arid land management, fisheries etc. The ORP demonstrated latest agricultural technologies on the farmers' fields to influence the farmers as well as the State extension agencies. It also studied the socio-economic, technological extension and administrative barriers which were coming in the way of rapid transfer of technologies and pointed out the same to the extension agencies.

The ORPs considered two kinds of problems: first the common agricultural problems affecting the farming community requiring group or community action, e.g. plant protection and rodent control; and secondly total resources development of the watershed area. Some of the ORPs attempted to concentrate on the major problematic areas rather than either on a common subject or the total resources development like enhancing agricultural as well as livestock production.

The ORPs were mainly implemented through the agricultural universities, the ICAR institutes and the State departments of agriculture. Selected voluntary organizations with necessary scientific background and support for rural/agricultural development also undertook such projects. Linkages of these projects with local and allied institutions were emphasized for mutual interaction and multiplier effect.

6.4 Krishi Vigyan Kendra (Farm Science Centre)

The KVK project is sponsored by the ICAR and is implemented by the ICAR institutes, state agricultural universities (SAU), selected voluntary organizations, public undertakings and some state departments of the agriculture. The first KVK was established in 1974 at Pondicherry under Tamil Nadu Agricultural University. At present, there are 602 KVKs in the country.

The priority for establishing KVKs is given to hilly areas, drought prone areas, forest areas, coastal areas, floodprone areas, and areas dominated with tribal farmers, weaker sections, small farmers' and landless labourers. The objective is to gradually cover the entire country with one KVK in each district, priority being given the backward areas.

The head of the KVK is the Training Organizer/Programme Coordinator. Training Associates/Subject Matter Specialists and Training Assistants form the core staff and are drawn from the disciplines like agronomy, horticulture, livestock production, home science, fisheries and extension education. There is a provision of having a total of 16 staff in each KVK. A Scientific Advisory Committee (SAC) with representatives from the agricultural university, ICAR, relevant Government departments, panchayat, progressive farmers etc. is formed for each KVK for providing guidance on its working. Holding regular SAC meeting was found to be an essential condition for successful functioning of a KVK.

6.5 Trainers Training Centre

Trainers' Training Centres (TTC) were established in 10 specialized subjects, mainly in the ICAR institutes for in-service training of the teachers/trainers of the KVKs and such other non-degree level institutions. The centres offer in-service training courses for the trainers/instructors of the extension training centres, farmers' training centres, agricultural schools, and teachers dealing with work experience and vocational courses. However, these TTC were closed by the ICAR during the year 1996.

6.6 Lab to Land Programme

The Lab to Land Programme (LLP) was launched by the ICAR in 1979 as a part of its -Golden Jubilee celebration. The *overall objective* of the programme was to improve the economic condition of the small and marginal farmers and landless agricultural labourers, particularly scheduled castes and scheduled tribes, by transfer of improved technology developed by the agricultural universities, research institute etc.

The programme was initiated with 5,0000 farm families over the whole country. It was implemented by the agricultural universities, ICAR institutes, state departments of agriculture and some selected voluntary organizations. No separate staff was provided for the programme. Major thrust in the programme was to introduce the most appropriate technologies that would help in the diversification of labour use and introduction of supplementary sources of income. The programme had been in operation in a number of phases. Normally a phase ran for a period of two years with a particular set of farmers.

With effect from April 1992, all first-line transfer of technology projects of the ICAR viz. ND, ORP and LLP were integrated into KVKs. Accordingly, the mandates of KVKs were revised and are as follows:

1. Collaborate with the subject matter specialists of the State Agricultural Universities/scientists of the Regional Research Stations (National Agricultural Research Project) and the State extension personnel in 'on-farm testing', refining and documenting technologies for developing region specific sustainable land use systems.
 2. Organize training to update the extension personnel with in the area of operation with emerging advances in agricultural research on regular basis.
- III. Organize long term vocational training courses in agriculture and allied vocations for the rural youths with emphasis on 'learning by doing' for generating self-employment through institutional financing and on-and off-campus training courses for the farmers with a view to increasing production on their farms.
1. Organize front-line demonstrations in various crops to generate production data and feedback information.

Over the years, the KVKs emerged as a national network of training organization at the base level for imparting improved knowledge and skills to the farmers, farm women, rural youth and extension functionaries.

6.7 Technology Assessment and Refinement (TAR) - Institution Village Linkage Programme (IVLP)

In 1995, the ICAR launched this innovative programme and the objectives are to:

1. Introduce technological interventions with emphasis on stability and sustainability along with productivity of small-farm production systems.
 2. Introduce and integrate the appropriate technologies to sustain technological interventions and their integration to maintain productivity and profitability taking environmental issues into consideration in a comparatively well-defined farm production system.
- III. Introduce and integrate the appropriate technologies to increase the agricultural productivity with marketable surplus in commercial on and off farm production system.
1. Facilitate adoption of appropriate post-harvest technologies for conservation and on-farm value addition of agricultural products, by-products and waste for greater economic dividend and national priorities.
 2. Facilitate adoption of appropriate technologies for removal of drudgery, increased efficiency and higher income of farm women.
 3. Monitor socio-economic impact of the technological intervention for different farm production systems.
- VII. Identify extrapolation domains for new technology/technology modules based on environmental characterization at meso and mega level.

6.8 National Agricultural Technology Project

The National Agricultural Technology Project (NATP) was launched by the Indian Council of Agricultural Research (ICAR) on June 30, 1998, with the support of the World Bank, to strengthen and complement the existing resources and to augment the output of the National Agricultural Research System (NARS).

NATP was the world's biggest World Bank assisted agriculture project worth Rs. 992 crores developed and executed by NARS. The lifespan of NATP was seven years, from 1998 to 2005. NATP was the first project in NARS to shift the focus from discipline oriented research to production system research. NATP was the first project in NARS to involve competitive funding, and have pluralistic approach to involve and fund partners from outside NARS. NATP successfully completed a whopping total of 852 projects.

6.9 Agricultural Technology Information Centre

The Agricultural Technology Information Centres (ATIC) were established in the year 2000. These ATICs serve as a single window delivery system for services and products of research for the areas in which the concerned institute is involved. At present, there are 44 ATICs established in ICAR institutes and SAUs.

6.10 National Agricultural Innovation Project

The National Agricultural Innovation Project (NAIP) was launched in the year 2006 by ICAR. The overall objective of NAIP is to facilitate the accelerated and sustainable transformation of Indian agriculture in support of poverty alleviation and income generation through collaborative development and application of agricultural innovations by the public organizations in partnership with farmers groups, the private sector and other stakeholders.