Technology Transfer and Impact Assessment

Technology generation is widely recognized in agriculture sector as one of the major determinants of economic growth, but has to be transferred and adopted by farming community in order to realize growth and food security. The transformation of traditional agriculture into knowledge based agriculture and shift from cereal based to high value agriculture require expeditious transfer of research results from lab to land. It will empower farmers to practice science-based high value agriculture and feedback to National Agricultural Research System (NARS) for

TECHNOLOGY TRANSFER AND IMPACT ASSESSMENT

Social Sciences

Impact of Devolution on Agricultural Extension System in Pakistan

- The data for the study was gathered from Sindh, NWFP and Balochistan provinces. Two districts from each province were selected. The target population was district Nazims, District Coordination Officer, extension agents and progressive farmers. After devolution, the agricultural extension services were placed under the control of district government whereas other sister organizations such as agricultural research, adaptive research, agricultural engineering, agricultural education etc. are under the control of provincial government. Therefore, the research-extension-education linkages were already weak and insufficient. The extension agents claimed about improvements in extension activities after devolution but farmers reported no worth noting change in the activities of the department of agricultural extension. It was found that the elected representatives of district governments are more inclined towards civil works, village electrification and other developmental work rather than promoting agricultural activities in their area.

Training course arranged by TTI, Gilgit

Varietal Adoption Effect on Wheat Crop Production in Irrigated Areas of NWFP

- This study was designed to examine yield performance of different wheat varieties in the irrigated areas of the province. Inqalab-91 variety of wheat which is now very susceptible to rust was widely cultivated. The study demands an urgent attention of the provincial policy makers to arrange sufficient quantity of seed of recommended wheat varieties through involving private sector by offering appropriate business and other incentives so that more wheat area is planted under recommended varieties.

Okra Pest Control through IPM Technology in Sindh

- One hundred okra growers were interviewed from Tando Allahyar area during September 2006. It was found that none of the sample farmer has IPM training. Rather they think that spraying on crops also kills beneficial insects. Majority of the farmers were not aware of the problems associated with pesticide

A group photograph of participants of International Workshop on Best Practices of Agricultural Technology Transfer and Commercialization on December 4-8, 2006

use and also not follow precautionary measures. Therefore, majority of them (80%) do not cover their face and use eye glasses while spraying the fields. They also handle the pesticide containers carelessly by throwing them away the empty containers. The average cost per acre was estimated as Rs.38572/acre and net income as Rs.38287/acre making benefit-cost ratio as 1:2. It is suggested to impart IPM training to the vegetable growers in general to produce safe vegetables for the consumers.

Technology Transfer Field Activities

SSD provides science-based information and NARS-developed technologies to the growers through a network of its satellite Technology Transfer Institutes (TTIs) housed at the heart of provincial agricultural research systems, National Agricultural Research Centre (NARC), Northern Areas and AJK. The diverse spread of TTIs network has a unique characteristic of feeding back NARS on the issues confronted by the farmers in all ecologies of the country. The TTIs also act as candid broker and a principal source of farmers' feedback to the scientists for refining their technologies. Developing a pluralistic approach in knowledge transfer, the TTIs involve provincial and district governments, NGOs, private sector and farm-based organizations in dissemination of research findings. The task of technology transfer consisted of field days, organizing training of the farmers and other stakeholders, arranging mega field events, radio talks about improved crop and livestock production technologies and preparation/distribution of brochures carrying brief information on different topics.

Field day on "Sugarcane Production Technology" on February 26, 2007 at Samundri organised by TTI, Faisalabad

Capacity Services/Training

- Consultancy services were provided to eighty (80) NARC/PARC scientists and the students of the universities in planning and designing of field experiments, analysis of experimental data, and the interpretation of results.
- Provided on-job training to Mr. Prem Chand Chandwani, Statistical Officer, Rice Research Institute of Dokri during September 4-December 21.

Popular Articles/Translations

Language poses a big barrier in clear understanding of knowledge and innovation. By breaking this barrier, TTIs published 55 popular articles in local languages and distributed among the stakeholders.

Farmers' Field Days

Seventy-four (74) farmers' field days were conducted across the country through satellite institutes covering the topics pertaining to crops, horticulture and livestock production technologies.

Radio Talks

Thirty-six (36) radio talks were aired by Hyderabad, Peshawar, Gilgit and Faisalabad radio stations organized by SSD satellite technology transfer institutes.

TECHNOLOGY TRANSFER AND IMPACT ASSESSMENT

Mega Events/Exhibitions

Seven (07) mega events/exhibitions on high value crops and livestock were arranged by the satellite institutes for dissemination of information and technologies among the growers at various occasions throughout the country.

Brochures

Thirty-two (32) brochures on various NARC-developed technologies were printed and distributed among the farmers and all other stakeholders.

ALP Projects

Six poverty alleviation projects under Agricultural Linkages Program (ALP) were launched in 26 selected districts of all provinces, Northern Areas and AJK by the regional technology transfer institutes to enhance farm productivity through dissemination of proven technologies at farm level and capacity building of farmers by participatory approach.

TTI, NARC

Exposure Visits

· Twelve such visits were conducted for different delegates, agricultural officers, field assistants, progressive farmers, rural women, university students and other interested groups.

TV Programmes Production and Telecast

· Produced 774 different agriculture TV programs in Urdu language which included 02 Panel Discussions (25 min. duration each), 04 Interviews (10 min.) 15 Spots (30-60 sec.), 200 PARC Kissan Helpline programs (15-30 min.) and 07 Rice, 08 Cotton, Electronic Media Campaign Spots.

Radio Programmes Production and Broadcasting

· Produced 1123 radio programs in Urdu, Sindhi, Balochi and Pushto languages and broadcasted through Radio Pakistan National Hook-up and regional networks.

PARC Audio & Video Programmes on CDs

· Developed 90 audio and 550 video CDs/DVDs of

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different agri. programmes and distributed to Provincial Agriculture Departments, farmers and other interested individuals.

PARC Kissan Helpline

- Responded 4,000 farmers queries received on telephone and over 1000 letter from all over the country on various problems/topics.
- About 60,000 copies of booklets and brochures were distributed to farmers, trainees, extension staff, students and other clientele for their technical guidance.

Training Courses

- Fifteen courses for 248 agriculture and livestock village extension workers (ALVEWs)/ farmers (NGOs) were conducted.

Potato

- Twenty five on-farm TPS trials were conducted in major potato growing areas of Pakistan. In all trials the yield of TPS families were found significantly better(25-34 t/ha) as compared to control varieties (15-22 t/ha.).

KARINA, Juglote

- Six thousand fruit plants were distributed amongst Agriculture Extension Deptt./NADP, Farmers and others during the year.
- Services of quality bull were provided for the local cows which have crossed over 12 cows.
- Seeds of improved varieties of wheat, maize, vegetable and fodders were supplied to the farmers.
- Thirty persons were trained in food processing specially seabuckthorn. Similarly, farmers' day and seminars were also conducted.
- Two seabuckthorn products prepared and issued to communities through marketing and fair price shop. These seabuckthorn products were used as medicine against diseases and as food. Seabuckthorn plants and seeds were also supplied to farmers.
- About 18,000 trout fingerlings were provided to communities/private sector.