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Adoption of KVK Technology among the Farming Community using Innovative Project Approach-A Case Study of NEH Fund Programme in Meghalaya

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Under NEH Fund assistance, KVK West Khasi Hills has been selected by ICAR-Indian Institute of Wheat and Barley Research (IIWBR), Karnal, Haryana during the year 2022-23. With this support, KVK had selected three villages from the two districts of West Khasi Hills and Eastern West Khasi Hills of Meghalaya based on degree of innovativeness. About 120 farmers were identified among the villages for technology demonstration. Using project approach, skill trainings were imparted to the farmers supported by input distribution as well as technology demonstration on areas such as crop production, plant protection, horticulture and inputs production. With this assistance, farmers are highly benefitted from this programme which impacted their livelihood and the overall socio-economic upliftment. The purpose of this article is to promote the KVK agricultural technologies through project approach especially for small and marginal farmers for productivity and sustainability.

Keywords: Extension approaches, Project approach, Adoption, Meghalaya, Technology demonstration

Introduction

For decades the research-extension-farmer linkage, especially in developing countries, was based on a rather simple model. In order to achieve development, "modern" research results had to be transferred to the "traditional" farmer, and extension seemed to be the appropriate means to do so. The general faith in science and the commitment to modernization led to discrediting indigenous knowledge. What is called for is a setting of new priorities and the building of knowledge systems based on problem solving rather than on information transfer. KVKs have been functioning as Knowledge and Resource Centre of agricultural technology supporting initiatives of public, private and voluntary sector for improving the agricultural economy of the district and are linking the NARS with extension system and farmers. Krishi Vigyan Kendra is an integral part of the National Agricultural Research System (NARS), aims at assessment of location specific technology modules in agriculture and allied enterprises, through technology assessment, refinement and demonstrations. For years, different extension approaches have been adopted by different state departments for implementation of various programmes in the states. Extension comes in many sizes and shapes. Approach is the starting place for a particular style of action not the ending place. As defined by Axinn (1988), Extension approach refers to style of action, embodying the philosophy of an extension system which, by and large determines the nature and style of the various aspects of the system such as structure, leadership, program, methods and techniques, resources and linkages. Among the eight identified different approaches to extension work, the project approach concentrates efforts on a particular location, for a specific time period, often with outside resources. Part of its purpose is often to demonstrate techniques and methods that could be extended and sustained after the project period. Change in the short term is often a measure of success.

Major Extension Approaches

1) Training and Visit (T&V) System: Developed by the World Bank in the 1970s. Extension agents regularly visited farmers, provided training, technologies and delivered. Structured and systematic. It has limits on adopting Top-down; ignored local knowledge and farmer participation.

2) General Extension Approach: This approach assumes that technology and knowledge that are appropriate for local people exist but are not being used by them. The approach is usually fairly centralized and government-controlled. Success is measured in the adoption rate of recommendations and increases in national production.

3) Extension Reforms Approach: MANAGE came out with ATMA model of extension system under the Innovation in Technology Dissemination (ITD) component of Nation Agricultural Technology Project (NATP) after successful pilot testing during 1998-2005. The focus of the ATMA model of extension system is mainly to shift away from transferring technologies for major crops to diversifying output in allied sectors (Gupta and Shinde, 2013).

4) Farming System Approach (FSA): It is system or holistic approach at the local level. Close ties with research are required and technology for local needs is developed locally through an iterative process involving local people. Success is measured by the extent to which local people adopt and continue to use technologies developed by the program.

5) Participatory Approach: This approach often focuses on the expressed needs of farmers' groups and its goal is increased production and an improved quality of rural life. Implementation is often decentralized and flexible. Success is measured by the numbers of farmers actively participating and the sustainability of local extension organizations. There are several techniques are being used in participatory approaches, however for the present study Participatory Rural Appraisal (PRA) and Focused Group Discussion techniques are considered.

6) Commodity Approach: The key characteristic of this approach groups all the functions for increased production - extension, research, input supply, marketing and prices - under one administration. Extension is fairly centralized and is oriented towards one commodity or crop.

7) Project Approach: This approach concentrates efforts on a particular location, for a specific time period, often with outside resources. Part of its purpose is often to demonstrate techniques and methods that could be extended and sustained after the project period. Change in the short term is often a measure of success.

Advantages of the Project Approach

1. It can give quick results.
2. Novel techniques and methods can be tested and experimented.

Disadvantages of the Project Approach

1. Time too short.
2. Anticipates a flow of the 'good ideas' in the project area to other places.
3. When the supply of money ends, so does the project. i.e. The assumption of continuity seems usually to be unwarranted. Once project termination looms, there is a running down as staff leave and the field unit struggles to become reintegrated in to a larger national system.
4. A tendency to consume a large proportion of resources on baseline surveys and the establishment of a temporary logistic base.
5. Staff both local and expatriate tends to become the immediate beneficiaries.
6. Pressures to show immediate results leading to fictitious reporting.
7. Innovations introduced under an external project will be seen by the host government as the outsiders' responsibility and often are quickly abandoned once external funding ceases. Generally, improvements which do occur are usually short leaved. They depend heavily up on the enthusiasm of a few key individuals. The project could be terminated as the finance and resource supplied outside stops.

Methodology

During the year 2022-23, assistance known as NEH Fund was received by KVK through the ICAR-Indian Institute of Wheat and Barley Research (IIWBR), Karnal, Haryana. Using project approach, KVK had identified various proven technologies for demonstration at the farmers' field. About 120 farmers were identified from the three villages of two districts of Meghalaya namely Eastern west Khasi Hills district and West Khasi Hills district. Farmers received hands on trainings, technical guidance, and input support for subsequent demonstration. These practices have really benefitted the farmers with the reliable profit returns along with food security, and employment, while fostering community-based knowledge sharing.

Results

Using project approach, Krishi Vigyan Kendra (KVK) West Khasi Hills in collaboration with ICAR-Indian Institute of Wheat and Barley Research, Karnal, Haryana had conducted three days Awareness camp/training programme for 3rd, 5th and 7th May, 2022 at three villages of Langdongdai, Mawkynbat and Phudbah under West Khasi Hills and Eastern West Khasi Hills districts respectively, which is the programme sponsored by the Ministry of Agriculture, Government of India for North Eastern Hill (NEH) Region. On 3rd May, 2022 first programme was conducted at Langdongdai, an aspirational village of West Khasi Hills under Mawshynrut C & RD Block with the active participation of about 165 farmers, lead scientists from ICAR-IIWBR, Karnal Dr Satyavir Singh, Principal Scientist & Head, Social Science and KVK officials. Trainings were imparted to them by the KVK scientists on various farm technologies such as vermicomposting, paddy cum fish, poultry farming, biopesticides. agricultural inputs namely vegetable seeds, biopesticides, biofertilizers, piglets and veterinary medicines were distributed to the farmers. Similarly, such programmes were organized for Mawkynbat and Phudbah villages- Doubling Farmers Income village on the 5th and 7th May, 2022 with the active participation of more than hundred farmers for training and input distribution.



Case studies

1) Smt. Helti Basaiawmoit aged 35, is a farmer from Phudbah village. She owns 3.5 acre of land both lowland and upland field. A farmer used to get an annual income of Rs.30,000 from paddy and pea cultivation. She is skeptical on introduction of improved crop varieties to her farm. With the support from the NEH fund, crop diversification and area expansion theme is adopted providing input support of pea and cauliflower seeds; thus raising her annual income from Rs 30,000 to Rs 1,70,000, respectively.

Crop	Area (Acre)/No	Production (Q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)
Pea	1	10 q	80000	50000
Cauliflower	0.5	30 q	90000	50000
Total	1.5	60 q	170000	100000



2) Shri. Wanbor Kurbah is a hard-working farmer from Phudbah village, aged 40 yrs old. He used to get an annual income of Rs.33000 from his farm growing paddy and pea. He is facing problem of low income due to shortage of capital. Through this programme, using crop diversification theme, improved hybrid seeds of cabbage and pea were distributed to the farmer, thus earning him a gross benefit of Rs 140000/- from these two crops.

Crop	Area (Acre)/No	Production (Q/Liter/No.)	Gross Income (Rs.)	Net Income (Rs.)
Pea	2	20 Q	60000	20000
Cabbage	1	10 q	80000	50000
Total	3	30 q	140000	70000

3) Smt. Angela Shangoi is a progressive farmer from Mawkynbat, West Khasi Hills district, Nongstoin. She has eight children and owns about 4 hectares of land growing varieties of crops such as paddy, carrot, pea, chillies, coriander and different vegetables. Before she used to grow flowers in her polyhouse but due to weather calamities her polyhouse was damaged. Through this NEH fund, input support such as vegetable seed and poly films was supported to her. With this support, she has grown french bean in her polyhouse earning a net return of Rs 20000/- from an area of 500 sqm area.



Conclusion

Under NEH Fund assistance from ICAR-Indian Institute of Wheat and Barley Research (IIWBR), Karnal, Haryana during the year 2022-23, the farmers are very much benefitted. from the selected three villages of West Khasi Hills and Eastern West Khasi Hills of Meghalaya. About 120 farmers were identified among the villages for technology demonstration. Using project approach, skill trainings were imparted to the farmers followed by input distribution as well as technology demonstration on areas such as crop production, plant protection, horticulture and inputs production. With this assistance based on crop diversification, area expansion of local growing crops and supporting critical inputs, farmers are highly benefitted which eventually impacted their livelihood and the overall socio-economic upliftment.

Reference

1. Axinn, G. H. (1988). *Guide on alternative extension approaches*. Rome: FAO.