



Agricultural and Rural Development through Krishi Vigyan Kendras

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Abstract

Krishi Vigyan Kendras have established their geographical presence in almost every part of the country, spreading their wings from Niyam in Jammu and Kashmir to Nicobar in the Andaman. The KVKs have been doing yeoman service to the farming community even in the most difficult areas like border districts, left wing extremism affected areas and archipelago of islands like Lakshadweep. It is also important to note that the KVKs are emerging as the regional knowledge hubs and are earning the goodwill of the farmers across the country. KVKs are part of National Agricultural Research and Extension System, whose strength lies in its multi-disciplinary composition, mulitstakeholder ownership and multi-faceted activities.

Keywords: *Rural Development, KVKs, Agriculture, Socio-economic status*

Introduction

Krishi Vigyan Kendra is a noble concept developed and funded by Indian Council of Agricultural Research (ICAR), New Delhi. KVKs are working under the administrative control of ICAR, SAUs, Central Universities and NGOs. The basic concept of functioning of KVKs is transfer of technology from laboratory to farmer's field (under lab to land programme) with respect to important fields of agriculture, viz. Crop Production, Plant Protection, Horticulture, Livestock Production and Management, Farm Engineering, Soil Water Conservation, Home Science and allied fields. They are directly working for rural development through transfer of technology. New/improved technologies developed by ICAR and SAUs are transferred to the farmers field through On Farm Trials (OFTs), Frontline Demonstrations (FLDs), Trainings and Extension activities such as Kisan goshies, Farmer fairs, etc. Nowadays agriculture is not only farmers' job; it is growing as agri-business for both rural as well as urban areas. In the present scenario farmers are educated, intelligent, attentive, skilled and eager to learn new things that may help in their working. They are using most modern technologies for better production and marketing of their produce. Hence, agriculture is flourishing as agri-business and it has a better potential to uplift the socio-economic status of rural community. In this way, KVKs are playing an important role in agricultural and rural development through all the above mentioned activities (Das and Mishra, 2004).

Indian Council of Agricultural Research (ICAR) has been emphasizing on the research in various disciplines of agriculture and allied subject since 1960's to generate new technology to increase crop production in different agro-climatic zones of the country. A number of technologies have so far been developed through constant efforts of the scientists which have contributed to boost up the agricultural production. But the technologies so

developed in the research field have not been efficiently transferred through extension agencies of different state Government. It is observed that a lot of technologies could not reach the farmers' field due to high cost of adoption and lack of the interest of the extension agencies. Hence, the transfer of developed technologies was not complete and effective. Later on KVKs were established for easy and active participation of farmers through Front Line Demonstration and on Farm Testing.

Evolution of KVKs in India

Based on the recommendations of the Education Commission (1964-66), review by the Planning Commission, Inter-Ministerial Committee and other further recommendation by the committee headed by Dr. Mohan Singh Mehta appointed by ICAR in 1973, the idea of establishment of Farm Science Centre (Krishi Vigyan Kendra) was evolved.

Stage-I: The first KVK was established in 1974 on a pilot basis at Pondichary under the administrative control of the Tamil Nadu Agricultural University (TNAU), Coimbatore. The Planning Commission approved the proposal of the ICAR to establish 18 KVKs during the Fifth Five Year Plan. With the growing demand for more such Kendras, 12 more KVKs were approved by the Governing Body of the Council in 1979 and were established in the same year from Agricultural Produce Cess Fund (AP Cess).

Stage-II: Pending clearance of the Sixth Five-Year Plan scheme on KVK by Planning Commission, 14 additional KVKs were again approved by the Council in 1981, which were established during 1982-83 from the same fund (AP Cess Fund). A High Level Evaluation Committee on KVKs was constituted by IACR in 1984, which after through review of the programme, a strong recommendation has given for the establishment of more KVKs in the country. Keeping this in view, the Planning Commission approved to establish 44 KVKs during the Sixth Plan. Thus, by the end of Sixth Plan, 89, KVKs had started functioning in the country.

Stage-III: During Seventh Five Year Plan, 20 new KVKs were established. The success of KVKs at many locations created a great demand for establishment of more KVKs in the remaining districts of the country. Accordingly, the Planning Commission further approved 74 new KVKs to be established during the period 1992-93.

Stage-IV & V: Again in the Eighth Plan (1992-97), 78 new KVKs were approved and the same were established in tcountry, making total number of functional KVKs by the end of Eighth Plan to 261. The number of KVKs increased to 290 during Ninth Plan with the establishment of 29 KVKs.

Stage -VI: On the occasion of the Independence Day Speech on 15th August, 2005 the Hon'ble Prime Minister of India announced that by the end of 2007 there should be one KVK in each of the rural districts of the country. This has resulted in establishment of 551 KVKs at the end of Tenth Five Year Plan which included 371 KVKs under State Agricultural Universities (SAUs) and Central Agricultural University (CAU), 40 under ICAR Institutes, 88 under NGOs, 33 under State Governments, 3 under PSUs and the remaining 16 under other educational institutions.

Stage -VII: At present there are 637 KVKs established and functioning in the country. With a decision of establishment of KVKs in all the rural districts during Eleven Plan, the qualitative improvement in the working of KVKs was envisaged through the mandates.

Objectives of KVKs

The general objectives of all the activities undertaken by KVKs are:

- 1.To demonstrate the new improved technology to the farmers as well as to the extension agencies directly in the farmers' field with their active participation.
- 2.To identify the important problems of that area as per the need of the farmers and prioritization of the identified problems as per their importance.

- 3.To collect feedback from the farmers and extension agencies and to communicate these messages to research scientists for modification of technology.
- 4.To impart training on different topics to different group of the villagers.
- 5.To provide new and important information to the extension agencies and NGOs for wider circulation in the locality to improve their economic condition.
- 6.To prepare different extension models and verify these models in the farmers field with their participation to create confidence among them.

To achieve all the abovementioned objectives KVK undertake following types of activities in the adopted villages:

- 1.Farm Advisory Service
- 2.Training programme for different categories of people.
- 3.Training programme for the extension functionaries.
- 4.Front Line Demonstration (FLDs)
- 5.On Farm Testing (OFTs).

As per the mandate of Indian Council of Agricultural Research, KVKs will operate under the administrative control of State Agricultural University (SAU) or Central Institute situated in a particular area. Scientists from different disciplines as per the specific requirement of that particular area are posted in the Krishi Vigyan Kendra as Training Associates/Subject Matter Specialists (SMS). Generally, there are six categories of scientists posted in KVKs (Kokate, 2013) as under:

- Training Associate/SMS (Crop Production) to look after the experiment on field crops as well as provide training and advice on different field crops.
- Training Associate/SMS (Horticulture) looks after the training and demonstration on horticultural crops such as vegetables, fruits and flowers.
- Training Associate/SMS (Plant Protection) Provides training and demonstration on management of different pests and diseases in different crops. He also imparts training and advice on different types of pesticides and insecticides, methods and time of their application.
- Training Associate/SMS (Animal Science/Livestock Production and Management) looks after overall growth and management of animal resource of that particular area. He also imparts training and advices on broiler farming, dog rearing as well as rabbit rearing etc.
- Training Associate/SMS (Agricultural Engineering) looks after use of different agricultural implements in the field for different agricultural operations through training, demonstrations and on farm testing.
- Training Associate/SMS (Home Science) is involved in the improvement of skill and attitude of the farmers and farm women, providing advices and training on kitchen gardening, preparation of nutritional food and different handicrafts. He/she also imparts training regarding the preservation and storage of fruits and vegetables for rural youths of the adopted village.

Training Organizer/Programme Coordinator is the the head of Krishi Vigyan Kendra family and he/she coordinates the work of all scientists for smooth functioning of the KVK as well as for the benefit of the rural people of that particular area. He is also liaisoning officer with other line departments for coordination and effective implementation of different programmes of the KVK in the adopted villages. Every KVK has adopted 4 to 6 economically, culturally and technologically backward villages situated within 10-20 Kms radius of the KVK. These villages are not too small or too large. Before adoption a detailed survey of the village is conducted to study the socioeconomic and cultural status of that village.

Nowadays Participatory Rural Appraisal (PRA) tool is used to conduct the surveys in which the village people actively participate in the process. The village map is drawn using

different colours by the villagers themselves with the help and guidance of the scientists conducting survey and different prominent structures and resources of the village such as school, temple, river, ponds etc. are depicted clearly in that map. These structures will help the scientists to conduct the survey easily and smoothly. Based upon the survey the field crop maps, animal resource map and other auxiliary maps are prepared for future use. After completion of the survey, detailed plan of work is chalked out and depending upon the requirement different activities are undertaken in different areas by KVK scientists.

Farm Advisory Services

Krishi Vigyan Kendra is also known as Farm Science Centre. It provides solution to the problems related to agriculture and allied subjects as and when faced by farmers of the region. Interested farmers/persons can also get proper advice regarding establishment of new entrepreneurship on non-traditional sector. The main function of advisory service centre is to provide continuous and constructive advice along with sound theory and practical knowledge to the contact villagers regarding agriculture and its allied subjects for their cultural and economical improvement.

The objectives of the farm advisory centre are as follows:

1. To study the socio-economic status of the villagers.
2. To develop and maintain close relationship between KVK and villagers.
3. To prepare individual farm model for upliftment of rural people.
4. To provide training and advice to the rural people so as to enable them to take part in the agricultural planning of the village, blocks as well as district.
5. Formation of farm club/farm centre or village committee for easy transfer of new information related to agriculture to the villagers in short time.

Training Programmes

Training is one of the most important activities of Krishi Vigyan Kendra. Training is planned and systematic effort to increase the knowledge, improve the skill and change the attitude of a person towards a particular subject. Training need assessment is the first and foremost factor to be considered before conducting any training programme.

Depending upon the need and categories of trainees, KVK imparts mainly following three types of training:

1. For practicing farmers and farm women: Trainings on different subjects are conducted by the scientists of the KVK as per the need of the local farmers of a particular area as well as the types of trainees and different audio visual aids are used to increase the efficiency of the training. As the trainees are practicing farmers and farm women, more emphasis is given on the practical than theory to improve their skill to change their attitude and increase their knowledge for that particular topic.

2. For Rural Youths/School dropouts: This type of training is imparted to the rural youth (Both male and female) with a particular mention to those who have left their education in midway, i.e. school dropouts. The main objective of this training is to provide sufficient knowledge and skill regarding a new entrepreneurship so that they can start their own business singly or collectively and generate some income for their livelihood. The main thematic areas of this type of training are mushroom cultivation, bee keeping, preservation of fruits and vegetables, broiler farming, goat rearing, tailoring, wool knitting, hand crafts and cultivation of exotic vegetable etc. for more profit. In this training more emphasis is given on the practical aspects and trainees have to do the practical themselves to get more confidence. The scientists of the KVK provide knowledge regarding the availability of the raw materials as well as the marketing of different products in that particular locality to the interested participants.

3. For Extension Functionaries/Extension Personnel: In this group mostly employees of government or nongovernment organisation working in the area of agriculture along with extension functionaries of line department and members of different NGOs operating in that locality are trained on different aspects of agriculture and rural development. The main objective of this type of training is to refresh the memory and upgrade the knowledge and skill of the extension functionaries by providing latest and new information on novel techniques as well as new approach of solving different problems faced by farmers of the area. As the extension functionaries of different department act like a bridge between the scientists and villagers, the refinement of the knowledge is highly essential and quite helpful for effective and efficient transfer of the technology.

Frontline Demonstrations (FLDS):

Frontline Demonstration (FLD) is the field demonstration conducted on the farmers' field with active participation of the farmer under close supervision of the scientist because the technologies are demonstrated for the first time before being fed into the main extension system of the state department of Agriculture in that particular area. In this method newly released crop production and protection technologies and their package of practices are adopted in a block of two to four hectares in the farmer's field. Only critical inputs and training for this demonstration are provided by Krishi Vigyan Kendra. In FLD both farmers and extension functionaries are the target audience. From FLD, it is possible to generate some data related to factors contributing to higher yield and also constraints of production under various farming situations. Frontline Demonstration is conducted in a particular area after thorough discussion and consultation with the farmers of that locality. Depending upon the requirement of that area highly efficient new proven technology with higher potentialities is selected for this programme. Generally, a field day is observed in the demonstration field when the crop is at maturity stage and interaction between the scientists, farmers and extension functionaries takes place in the field. The crop is harvested in the presence of the interested group of farmers so that they can visualize-the importance of new technology easily and effectively.

On Farm Testing (OFTS)

Testing of any improved technology (treatment) along with the farmers' practice (as local check or control) in the farmers field with active participation of both the scientists and farmers is known as OFT. In this method two to three improved technologies in the form of treatments are tested against the farmer's practice (control) in the same field so as to compare the results of these treatments. As per the suggestions of the farmers as well as local soil and climatic conditions the improved technology may slightly be modified by the scientists of KVK to get maximum return.

All these activities of the KVK are undertaken as per the suggestion and approval of the Scientific Advisory Committee. This committee consists of representative from the Vice-chancellor of State Agricultural University or Director of the Institute, representative from the Indian Council of Agricultural Research, representative of the District Collector, representatives from district line departments such as Department of Agriculture, Horticulture, Animal Husbandry, Sericulture, progressive male and female farmers, male and female social workers of that area and Training Organizer/Programme Coordinator of the KVK. Meeting of the Scientific Advisory Committee is held once in a season to review the work done by the KVK and provide suggestions for future plan of work. The future technical programme of the KVK is prepared as per the suggestion of the farmers of that particular area. Besides these activities each KVK has got different demonstration units such as mushroom unit, biofertilizer unit, vermicompost unit, broiler farming unit, bee-keeping unit, fruit preservation unit etc. When a person would visit KVK, he will be able to see all the

enterprises in the demonstration unit and he can interact with the scientists regarding establishment of his own enterprise. These units will help the villager to increase his confidence on a particular enterprise. The KVKs are the only core centres of agricultural extension system, comprising scientists from different disciplines of agriculture. A farmer who approaches KVK can get information in all the relevant areas of his farming. The KVK also provides intensive training to the farming community through the programmes conducted both within and outside the campus.

Helping In Rural Development

KVKs aim at comprehensive rural development and hence training on employment and income generating activities like wire basket making, tailoring, preservation techniques, agarbatti making, leather bag production, rope making, candle making, bee-keeping, goat and pig rearing, and many other agriculture based training are organized for school drop-outs, specially women, so as to make them earn during off-season. These trained people can start their own enterprises in local areas generating employment for the local rural youth. Thus, farmers are not the only beneficiaries of KVK but rural masses in one or another form are benefitted from the activities of KVKs. KVKs also formulates specific programmes for school children. Seminars, awareness camps, trainings and study tours are also organized for school children on bio-diversity conservation, kitchen gardening and tree planting (Braun *et al.*, 2005).

Conclusion

It can be concluded that Krishi Vigyan Kendras provide requisite knowledge through trainings and other activities to improve the skill and attitude of the people towards a particular subject, provide proper guidance to solve any problem faced by the farming community in agriculture and allied fields. Scientists working under KVKs provide inspiration, constructive and constant advice to the people of that area to start new entrepreneurship for their livelihood and show them a proper way when needed; thus rendering actual help as a lighthouse helps the sailor while in the sea.