

14. AGRICULTURAL EXTENSION SYSTEMS

Training & Visit System (1979)

It was felt that sustained high levels of agricultural production and incomes could not be possible without an effective agricultural extension service supported by agricultural research that is relevant to farmers' needs. With this concept Daniel Benor, the World Bank expert developed the Training and Visit (T and V) system for extension services to a wide range of agricultural and administrative environments in developing countries.

In Tamil Nadu this system was introduced as a pilot project in Madurai district and Sivagangai divisions of the then Ramnad district on 1.4.1980. This system was extended to all the districts of the state from 1.9.81. This scheme was aided by World Bank.

Objective

The purpose of T and V system of agricultural extension is to build a professional extension service that will be capable of assisting farmers to raise production and increase their incomes and of providing appropriate support for agricultural development. A key means to this end is the creation of a dynamic link between farmers, professional workers, and researchers. Some of the key features are outlined below.

Salient Features

Professionalism

Appropriate advice would help farmers to increase their income. This would come from an extension service that is professional at all levels. Extension staff must keep in close touch with relevant scientific developments and research in order to formulate specific recommendations. This can be achieved only if each extension worker is fully and continuously trained. The T and V system fulfills this requirement.

Single line of Command

The extension service must be under single line of technical and administrative command i.e., under the Department of Agriculture. However, support is required from teaching and research institutions, input supply and other agricultural support organisations and local government bodies, but all extension workers should be responsible administratively and technically to a unit within only one department.

Concentration of Effort

Only by concentrating on the tasks at hand the impact of extension become visible and progress can be sustained. All staff of the department will only work on agricultural extension.

Non-extension activities like supply of inputs, data collection, etc., will dilute the concentration of effort. These supporting activities are, of course, important to agriculture, but are the responsibility of other specialist staff who are trained and work full time in these fields.

Time-bound work

Messages and skills must be taught to farmers in a regular, timely fashion, so that farmers will make best use of the resources at their command. Subjects for two fortnights are learned by the Subject Matter Specialist (SMS) at monthly zonal workshops. These recommendations are then presented to VEWs at the two fortnightly training sessions. VEW visit his farmers regularly on a fixed day once in a fortnight and teach the messages and skills.

Field and Farmer Orientation

To serve farmers effectively, an extension service must be in contact with them. This contact must be regular and on a schedule known to farmers. Under this system, farmers served by a VEW are divided into groups; each group is visited on a fixed day once in every two weeks by the VEW. All other extension workers, including SMS, are to spend a large apart of their time in farmer's field.

Regular and Continuous Training

Regular and continuous training of extension staff is required both to teach, and discuss with them. The training sessions ie., fortnightly training and monthly workshops are key means of bringing actual farmers problems to the attention of research.

Linkage with Research

Effective extension depends on close linkages with research. Linkages are two-ways. Problems faced by farmers that can not be solved by extension workers are passed on to researchers for an immediate solution or investigation. The joint effort of research and extension staff help to formulate production recommendation.

Working Pattern

T and V system was introduced in 1974 in Rajasthan Canal areas in Rajasthan and Chambal Area in Madhya Pradesh. Then 13 states introduced this system. All the States extended this system in 1985.

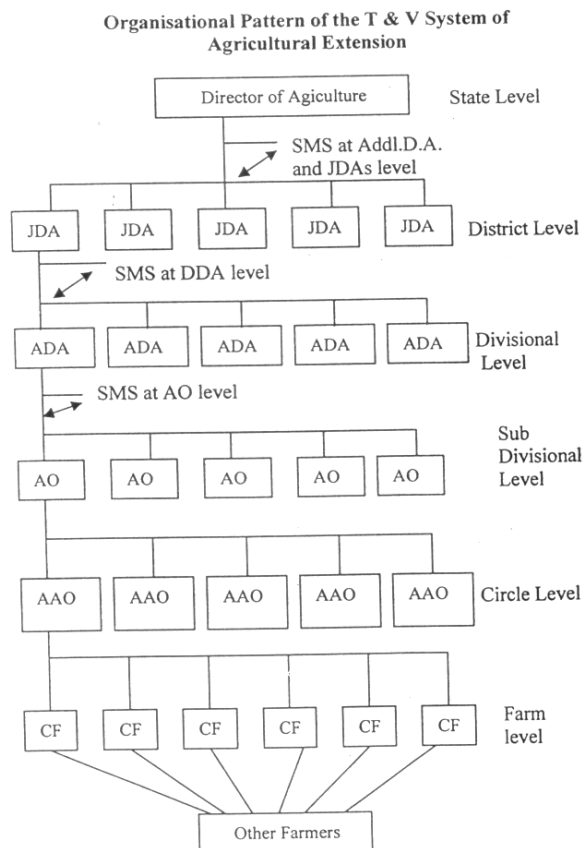
Organisation Pattern (Administrative Structures)

Training Pattern

The monthly zonal workshop is the main venue of inservice training for SMS and of regular contact between extension and research workers. The chief means of continuously upgrading and updating the professional skills of VEWs and AO s is the fortnightly training sessions.

Pre-Seasonal Trainings

Before the commencement of Kharif and Rabi seasons, pre-season trainings are conducted every year at research stations. The latest techniques pertaining to the season are passed on to the extension functionaries in this training programme.



Monthly Zonal Workshop (MZW)

This MZW is held for two days to build up the technical skills of SMS regularly in the field of their specialisation. The objective of this MZW is to cover six basic activities:

1. to review the rate of adoption of recommended practices by farmers, and the problems in adoption of recommended practices;
2. to note the difficulties faced by SMS in presenting and explaining recommendations;
3. to formulate and discuss recommended practices for major crops for the ensuing two fortnights;
4. to review the climatic, input and marketing situations of the area that may affect the adaption of recommended practices;
5. in the practical and field sessions, train SMS to carry out recommended practices themselves; and
6. to discuss the progress and results of the farm trials.

Monthly Workshops should be held at research station that is conveniently located in the district from which participants are drawn. It is held for two days. The day of MZW should not be the days of fortnightly training sessions at sub-division level. Two full days are recommended for the workshop to discuss carefully the topics presented and their own work experiences, reviews current field problems, finalise recommendation, etc. The maximum number of participants should be about thirty-five.

The participants are from extension service and university scientists. The participating extension staff would be the ADAs, SMS at the district and divisional level (taluk). The JDA will be the coordinator and he is responsible for overall effective planning of the workshop. The trainers will be researchers from SAUs and research station who are thoroughly conversant with local crops and technology as well as an experienced person working on major crops of the area. Guest trainers can also be included.

The MZW comes out with recommendations for the next two fortnights. SMS will teach these recommendations to AOs and AAOs in fortnightly training session.

Fortnightly Training

All Village Extension Workers (VEWs or AAOs) and Agricultural Officers (Aos) participate in one-full day training for each fortnight. This is the chief means of continuously upgrading the professional skills of extension workers and of infusing them with confidence to meet farmers. With an effective training the extension workers learn the specific recommendation that will be discussed with farmers over the coming fortnight. Without these recommendations, their visits are likely to be generalised and undirected and, therefore, of little use to farmers.

Fortnightly training sessions have two main objectives: one is to present specific recommended practices for the coming fortnight to the AO s and AAOs. The other objective is to act as a link between field level extension staff and research via SMS. This session is also used for regulating the input supplies.

This session can be held in research station, department farms or farmers field depending on the facilities available. AO s and AAOs must learn and practice the skills involved in the recommended technologies. Materials and equipments needed for teaching should be brought to the training site for each sessions.

Visit Schedules

Contact Farmers

Frequent contact between a Village Extension Worker (VEW) or AAO and all farmers in his area is not possible. Therefore visit of VEW focuses on a small, selected number of farmers called 'contact farmers' in each farmers' group and along with any other farmers who are willing and interested to attend his visit and seek his advises. The contact farmers, normally, constitute about 10 per cent. These contact farmers are selected by VEW based on the following characteristics: they should represent proportionately to main socio-economic and farming conditions of their group and regarded by other farmers as able and worthy of imitation; they should be practicing farmers; they should be willing to adopt the recommendations in their land and allow other farmers to observe the practices and explain the practices to them; as far as size and composition of farmers' groups, they must come from different families; and their farms should be dispersed throughout the group area.

Purpose of Visit

VEW's field visits have two chief purposes. One purpose; which is primary, is to advise and teach farmers and encourage them to adopt improved agricultural technology that is relevant to their resources and skills; the second purpose is to enable extension staff and through them, researchers to be closely and continuously acquainted with farm conditions and problems so that production recommendations and agricultural research are relevant to actual farmers' needs. On field visits, all extension workers should listen as much as they talk.

Formation of circles

First step to organise visit schedule of VEW is to define the circle of his operation. The circle should be a compact and continuous area. Each VEW is responsible for a manageable number of farm families. The number of farm families per VEW may range from 300 to 1500 depending on the actual field situations. Under the present conditions of Tamil Nadu a VEW may cover effectively 800 to 1000 farm families. The criteria fixed in hilly tracts is 1:250 farm families; 1:400 farm families in irrigated areas and 1:800 farm families in dry areas.

Scheduling Visits

Once VEW circles are established and contact farmers identified the visit can be scheduled easily. His circle is divided into eight groups. VEW visits each group in his circle for a full day once in a fortnight. With a fixed schedule for visiting a particular group, farmers will expect the VEW on the specific day at the established time. A typical schedule of VEW is given below:

	Fortnight I		Fortnight II	
	I week	II week	I week	II week
MONDAY	G1	G5	G1	G5
TUESDAY	G2	G6	G2	G6
WEDNESDAY	G3	G7	G3	G7
THURSDAY	G4	G8	G4	G8
FRIDAY	Depot review	FT	Depot review	FT
SATURDAY	HOLIDAY	HOLIDAY	HOLIDAY	HOLIDAY
SUNDAY	HOLIDAY	HOLIDAY	HOLIDAY	HOLIDAY

The visit schedule is the same for all fortnights. Alternative Fridays are used for fortnightly training. The remaining two Fridays are used by the VEW for depot review and to meet SMS and discuss with them, or to meet AO and appraise the progress or to make extra visits in case if he has missed any visit due to illness and so on. All the farmers in the circle must be fully aware of the day, time, place and purpose of the VEW visit.

Conduct of Visits

Visits should be field oriented. Most of the farmers who meet VEW should meet him in their fields. The time of the visit should be the time when farmers are in their fields. In Tamil Nadu, VEW makes field visits in the forenoon and meets as many farmers as possible and in the afternoon he makes himself available in a common place in the village so that farmers who want to discuss with him can do so.

Demerits of T & V System

1. The approach was too staff-intensive, some states faced difficulty to provide such a large number of staff members.
2. The emphasis was only on the development of agriculture, thus, neglecting other enterprises and aspects of family and rural development. In States having separate Directorates of Horticulture, Social Conservation etc., flow of information to the farmers relating to these disciplines was scanty
3. The approach is mainly confined to the farmers. The youth and farm women were almost neglected.
4. There was a problem of coordination with the research institutions and supply agencies.
5. The system was more suitable to the institutions where the process of development was just started. It has less relevance to the developed areas.
6. Information for the farmers in many cases were of routine type, which made sustenance of their interest in the programme difficult.
7. In training, emphasis was on technology and very little on extension methods, management techniques etc., which are also needed.
8. Emphasis was on personal contact of the extension worker with a few selected farmers, to the exclusion of almost all other extension methods and aids.

9. The existing village leadership and village institutions have been neglected.
10. Inadequate linkage with first-line extension programmes of the ICAR and Agricultural Universities.

Broad Based Extension System (BBE)

(Introduced under Tamil Nadu Agricultural Development Project – TNADP)

This system has been introduced in Tamil Nadu State from 1.4.1991. Government of Tamil Nadu has entered into an agreement with World Bank through Government of India for implementing the project for seven years from 1991.

Need for Broad Based System

The Training and Visit system recognised the farm family approach rather than ‘crop approach’ and ‘area approach’. In irrigated areas the village extension workers have full time job because the agricultural crops occupy 9-10 months in a year. In dryland the village extension workers do not have full time opportunities since the crops occupy 4-6 months. The messages delivered to the farmers were crop oriented and less importance was given to allied activities.

How broad based extension is an important over T & V System?

This system aims at rectifying the defects. Role of subject matter specialist is amplified and they are invited to formulate messages suitable to their land based activities. The village extension workers will have full time job by offering messages during lean season. The concept of broad based education lies in formulating and delivering composite messages to the farmers to meet the needs of their full agricultural environment.

Principles of broad based extension

1. Adoption of an integrated farming systems approach for the generation of relevant composite messages.
2. Broadening the range of subjects from agricultural crops to all allied subjects.
3. Improvement of the effective communication of the farming community.
4. Introduction of resource based planning down to sub-division level.
5. Encourages participation of non-governmental organisation in all agricultural extension activities.

Objectives of the broad-based extension

1. To increase the farm income.
2. To solve problems of the farming community.
3. To make extension system more cost effective.
4. To upgrade the quality of the extension workers.
5. To popularise integrated farming system approach.

Scope of the broad based extension system

The activities of all land based departments will be unified in the long run. Duplication of efforts and unhealthy competitions will be avoided. Agricultural department offers full support to the activities of all the line departments.

Methodology: Broad based extension system help the farmers in getting multiple message needed to improve their overall economy besides helping to grow agricultural crops. Thus, the farmers are encouraged in sericultural activities, growing good fodders, animal husbandry activities and growing fish in the farm ponds etc. These activities enable the farm community to get extra income.

Need for the broad-based extension: This system was formed to encourage the activities of the farmers. Different departments compete with one another and they have proposed to increase the staff component to contact as many farmers as possible. World Bank and Government of India thought to utilise the well established extension agency and bringing all extension and land based activities together.

Role of Subject Matter Specialist: District level subject matter specialists were positioned under the T & V system. They were SMS agronomy, SMS plant protection, SMS information and training and SMS training and visit. One additional SMS is responsible for the activities of oilseeds, horticulture etc., SMS have to expand their horizon. For instance SMS agronomy has to expand his activities to areas like mulbery cultivation, fruit trees, fodder cultivation etc. In areas where SMS is not available trainers from that particular department will act as SMS in that particular department will act as SMS in that particular subject.

Organisational set up: The extension system created under T & V system will be maintained. The VEW, AO, Taluk level SMS, District level SMS will be operating. There will be only marginal changes in the strength of field functionaries. The ratio of one VEW to farm families will be brought down and thus there will be marginal increase of VEW.

Operational guidelines: The monthly zonal workshop, fortnightly training, and fixed programme of field visits will be continued without any change. In the monthly zonal workshop SMS will help to formulate messages which are location specific.