UNIT 3 DEVELOPMENT COMMUNICATION IN AGRICULTURE

Structure

3.0 OBJECTIVES

After going through this unit you should be able to:

- describe the process of agricultural extension,
- explain the methods of introducing new ideas and practices in agriculture and related fields,
- identify appropriate instruments of communication for providing wider and effective extension support to the rural sector.

3.1 INTRODUCTION

In the earlier two units of this block, you were made aware of the concepts of development and development communication. The objective of this unit is to provide you with basic information on development support communication as applied to agriculture and other related areas of the rural sector, diffusion of innovations, the process of adoption of innovations, communication sources and strategies, select cases and evaluation of results.

In the last unit of this block, we shall discuss how the DSC can help in implementing the programmes in population, education, and environment successfully.

3.2 DEVELOPMENT-SUPPORT COMMUNICATION: THE GENESIS

Now, we shall discuss the origin of the development support communication. The origin of the development support communication is traced to the agricultural extension, which was initiated in the fifties of the present century in many of the developing countries. The study of the diffusion of hybrid corn by Ryan and Cross, in 1942, established the critical role of technological information for increased farm production. Agricultural extension education, as a part of agricultural sciences, branched off as a specialized field to help evolve theory and practice of modern methods of agriculture. In the developing, countries eventhough, a large majority of the population is engaged in agriculture, the small and marginal farmers are not able to produce adequate food because of the subsistence methods of farming. In our country,

the traditional way of tilling the soil and depending on the monsoons are very common. It was, therefore, considered necessary to help these farmers to change their agricultural practices, through extension methods so that they could adopt better practices and increase their output.

This approach, of spreading innovation, new ideas, practices, and technologies in agriculture to the farmers in the developing countries, became very popular as agricultural extension during the 50s. In view of the heavy dependence of agricultural extension of communication techniques and methodologies, in due course, communication applied to agricultural extension came to be known as agricultural communication. This was the time when development communication, as a specialised area of communication, was recognized, and became very popular. It slowly diversified into rural communication when extension specialists with knowledge of communication principles, transferred like health, hygiene, nutrition, sanitation, etc. Instead of confining developmental activity to the rural areas alone, the urban section was also included to help the poorer sections living in the slums. Thus, communication theory and practice applied to help stimulate the development process in general, and branched off as the development support communication (DSC).

The DSC was a concept popularized by the UNDP and other UN institutions like FAO, UNICEF etc. The World Bank also supported the DSC. It stands for linking all agencies involved in the planned development work such as political executives, policy planners, development administrators, subject specialists, field workers, opinion leaders, the media representatives, the researchers and beneficiaries who constitute the final delivery points, and the consumers of information. Thus, the routes of communication envisaged are not only vertical from top to bottom and bottom-upwards, but also horizontal between the institutions and personnel connected with the process of development.

John L. Woods (1976) conceived a triangular nexus with three points: **Knowledge generators, political leaders and development knowledge-users**, as shown below:

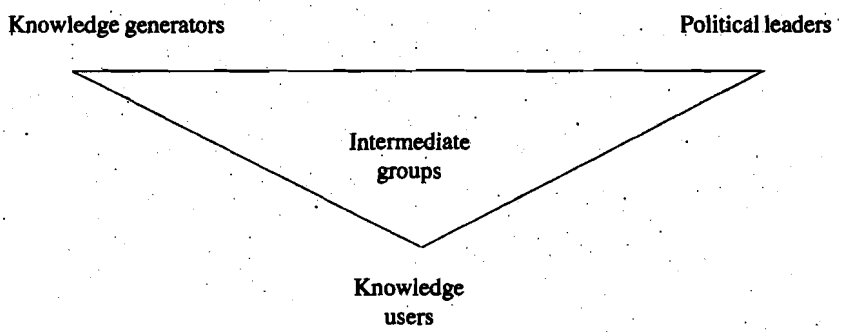

Figure 1: Wood's Triangle

The role of the DSC, according to Woods, is to link all three elements in the development linkage triangle plus all the intermediate user groups. His emphasis is not only on pushing the information towards the target groups, but also on taking into account the information seeking pattern of the target audience, and integrating them into the development planning process.

Check Your Progress 1

Note: i) Use the space given below for your answers.

ii) Compare your answer with the one given at the end of this unit.

1) What is the main objective of the development support communication?

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2) According to John L. Woods, for the development support communication to be successful, a very close interaction is needed among three groups. What are these groups?

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Activity 1

List five agriculture related advertisements. You may find them in posters, radio programmes, TV programmes and newspapers. Write the messages of each of these advertisements in the indicated column below. And give your opinion on whether or not these advertisements can be easily understood by the ordinary illiterate farmers.

Advertisement	Message	Communication ability
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3.3 FOCUS OF AGRICULTURAL DEVELOPMENT — SHIFTING EMPHASIS

An understanding of the term development and its scope is necessary to have a good grasp on the concept of development-support communication. As stated in the earlier units, during the '50s and 60s' the emphasis of development was on economic growth, and development was measured by quantifiable indices such as the GNP and per capita income. Following this approach, the communication scholars like Lerner (1958), Pye (1963), and Schramm (1964) recommended that densification of the mass media and an increased exposure to the media would contribute to the process of development. Based on their studies of diffusion of innovation, Rogers and Shoemaker (1971) defined development 'as a type of social change in which new ideas are introduced into a social system in order to produce higher per capita income and the levels of living through more modern methods and improved social organizations'. But, by the 70s, it became clear that such an economic approach to development failed to deliver tangible results. Increase in per capital income did not result in enrichment of human life in terms of equity, social justice, etc. The problem of unemployment and underemployment got aggravated with the poor becoming poorer and the rich becoming richer. The trickle down effects failed to materialize. In 1976, Rogers modified his definition of development, ''Development is a widely participating process of social change in society, increasing greater equity, freedom and their valued qualities for the majority of the people through gaining control over environment''. (Rogers, 1976).

This second approach to development, which became more popular as the new paradigm of development, underpinned income distribution, decentralised planning, labour intensive technology and indigenous and exogenous factors in development. The thrust of the new approach was on improving the quality of life through appropriate technologies, and promoting participation of people in the development process.

This shift in the meaning of development was accompanied by a redefinition of the meaning of communication. The old, linear, mechanistic one-way communication model with greater focus on the source (communicator) was replaced by a more dynamic interactive two-way model of communication. The focus in the new approach was on the recipient and the socio-cultural system.

Another approach to development is currently gaining wide recognition. The basic tenet of this approach is **self-reliance**. The advocates of this approach place high premium on integrated rural development, popular participation in the decision-making process, grassroots development, productive use of local resources, fulfilment of basic needs, maintenance of ecological balance, identification of the felt-needs and integrating culture as a mediating force in development. This approach discouraged the widespread tendency in the developing countries "to be like the west", to initiate the path of Western countries and pursuing their strategies to catch up. Instead, it urges a radical rethinking of the issues by adopting a culture-specific approach, using local resources for achievement of self-reliance. Such an approach was initially propagated by scholars like Galtung (1990). Ariyaratne of Sri Lanka pursued more vigorously this philosophy of development for the propagation of the Sarvodaya Movement in his country.

Check Your Progress 2

Note: i) Use the space given below for your answers.

ii) Compare your answers with the ones given at the end of this unit.

1) How was 'development' measured in the '50s' and 60s'?

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2) Explain in one sentence each the two new approaches to development.

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3) The approach to communication changes with the shift in the approach to development. How?

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3.4 AGRICULTURAL DEVELOPMENT IN INDIA: SPECIFIC FEATURES

Agriculture in India has certain distinctive characteristics, which influence its pattern of development. These are: wide regional disparities in terms of agro-climatic zones, cropping patterns, and levels and productivity; small and dispersed land holdings; cultivation of vast tracts of land in rain-fed conditions; low soil-fertility status and high incidence of pest attack; and proneness to flood and drought.

The strategy adopted for agricultural development has been multi-dimensional and broadbased: efforts to introduce extensive land reforms; centre-to-village level administrative machinery to implement development programmes; a nationwide network of agricultural research and education facilities; a number of surface and groundwater irrigation schemes; large scale production of chemical fertilizers; village level co-operative infrastructure to meet the credit and distribution needs; corporate sector to manufacture, process and supply agro-inputs, warehousing and storage facilities.

Productivity levels in agriculture depend to a large extent, on what response a farmer gives to the various plans and strategies of agricultural development evolved by the public agencies, from time to time.

3.4.1 Agricultural Extension

According to Ensminger (1962), "Extension is a programme and a process of helping village people to help themselves, increase their production, and to raise their general standard of living". Further, he calls it a process of teaching under practical living situations.

The National Commission on Agriculture (Government of India, 1976) has a much broader perspective. Extension, in its view, refers to informal out-of-school education and services for the farming community, to enable them to adopt improved practices in the production, management, conservation, and marketing of agricultural and allied activities. Agricultural extension aims at not only imparting knowledge and securing the outlook of the farmer to the point where he will be receptive to innovation on his own initiative, but also continuously seeking means of improving his farm occupation, home, and family life.

According to Shingi and others, extension in agriculture is an educational programme undertaken to activate the process of the transfer of knowledge, science and technology from laboratories to people, in order to help them to help themselves, change their attitudes and skills, help them in farm planning, decision-making, record keeping, use of inputs, storage, processing and marketing, to ensure supplies and services, increase their production, develop the people and their leadership, and improve their occupation, family and community life (Shingi et al. 1982).

Check Your Progress 3

Note: i) Use the space given below for your answers.

ii) Compare your answer with the one given at the end of this unit.

1) List four areas which could be considered for agricultural extension subjects.

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3.4.2 Extension Approaches Over the Years

The national extension service of the early fifties, with its broad objective of improving management of the traditional agriculture, envisaged participation of elected representatives of the people, a network of village level functionaries and subject matter specialists, and the greater use of audio-visual aids.

The Intensive Agricultural District Programme (IADP) of the sixties was envisaged to impart knowledge about innovations like improved agronomy practices, better quality seeds, chemical fertilizers, pesticides, implementation, soil and water management practices, and other services like research, information, credit, storage, marketing and related supplies. The approach included technical support to the extension workers, better administrative co-ordination, and establishing a link between education and input. The extension efforts were made goal oriented by concentrating on these activities.

An examination of the functioning of the IADP showed that, except for incremental wheat production in a few districts, the results were not satisfactory in a majority of districts. As a result, a new approach, called the Intensive Agricultural Area Programme (IADP), concentrated on areas having assured irrigation. The High Yielding Varieties Programme also met with only limited success in meeting the developmental goals (Mehta, 1975).

By the mid-sixties, a programme on national demonstrations was launched to popularize the superiority of the new techniques through on-farm demonstrations, determine on-farm

applicability of research recommendations, give confidence to the extension workers about the suitability of the new practices, and establish a direct link between the scientists and farmers so that the latter could understand the field problems better. The emphasis was on demonstrations and group discussions.

The limited performance of the green revolution has led the government, with the help of the World Bank consultants, to work out a new approach to tackle the problems of agricultural extension. The new approach, known as the TV system, formulated in the mid-seventies and operationalized in 1978, is based on the Benor Concept.

Check Your Progress 4

Note: i) Use the space given below for your answer.

ii) Compare your answer with the one given at the end of this unit.

1) What were the two main objective of the TV programme?

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Strengthening Organizational Communication

The TV system makes deliberate efforts to obtain relevant technical information; debate its utility and applicability; break it down into manageable segments; simplify it so that it can be communicated effectively; and pass it on selectively. While information passes through a hierarchy, every unit in the sequence is provided with sufficient autonomy and self-control.

This system has the potential of increasing the technical and persuasive capacity of both the farmers and the extension personnel.

3.4.3 System Approach in Agricultural Communication

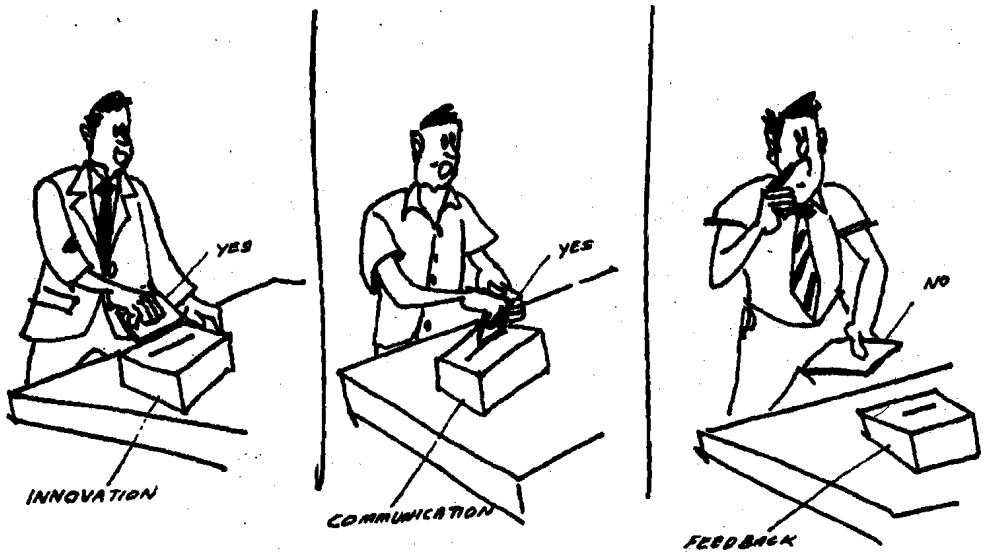
The communication support for agricultural development is intended to provide knowledge and skills about improved agricultural technologies so as to induce change in the existing farm practices for increasing agricultural output. In our country, agricultural communication forms a part of the overall agricultural extension strategy. According to K.N. Singh, the agricultural communication follows a system approach, consisting of three different sub-systems: (1) Research System (2) Extension System and (3) Client System. This is schematically represented below in Table 1.

Table 1
Agricultural Communication System in India

Research System	Extension/Communication System		Client System
Agricultural Institutes	University system	Extension	Farmers
Others			
Functions	Functions	Functions	Functions
Basic and applied research	Collection and processing of new technology	Communication and diffusion of innovation	Adoption of innovation
Innovation creation	Communication	Feedback	Feedback

On the basis of the research literature, four key elements in the agricultural communication process were identified as follows:

Sources: Agricultural scientists, inventors/researchers, extension workers (like the VLW), contact farmers, salesman, etc.



Messages: New technologies, fertilizers, pesticides, new practices, new tools and implements in agriculture, animal husbandry and allied areas.

Channels: Inter-personnel channels like extension workers, opinion leaders, the mass media like the radio, television, films, print channels like pamphlets, audio and video cassettes, and the folk media.

Receivers: The farmers, both male and female, and others adopting new technologies in allied areas like animal husbandry, pisciculture, social forestry, etc. In the dissemination of information in agricultural and related areas, a large number of channels have been reported. These include: extension personnel, village institutions, farmers, fairs, demonstrations, commercial agencies selling seeds, fertilizers and pesticides, bank officials involved in agricultural credits, the mass media channels like the newspapers, specialised farm journals, the radio, films, and television. But in our country, a lot of information gets percolated mostly by word of mouth through non-institutional sources like local leaders, progressive farmers, neighbours, friends, and relatives.

Activity 2

The State Government of Uttar Pradesh has decided to launch a massive reforestation programme in Banda district. You have been asked to plan a communication strategy for this programme. What are the steps you will take to fulfil your responsibility? While planning you must keep in mind the four essential elements of source, message, channel and receiver.

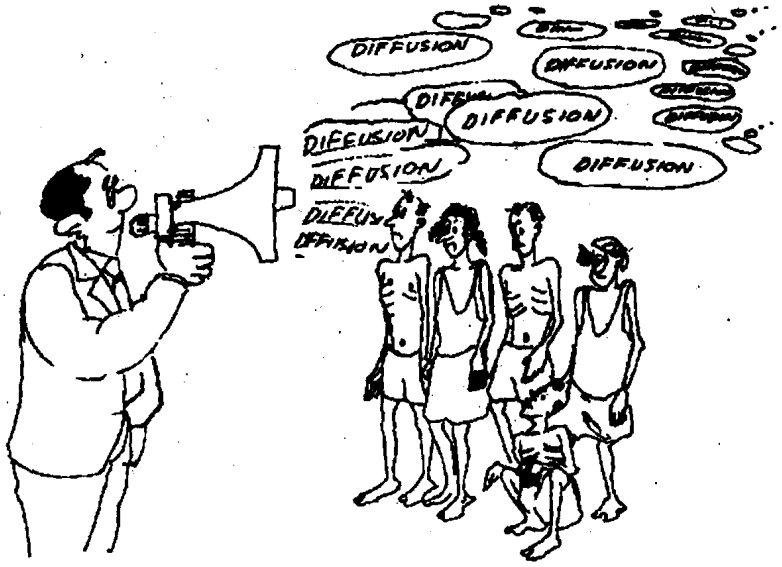
(A model communication strategy for this Activity is given at the end of this unit. Compare your strategy with it.)

3.4.4 Diffusion of Innovation: Key to Extension

Development underpins change and acceptance of innovations — ideas, practices and technologies. Hence, facilitating diffusion of innovations is an essential aspect of the development support communication. What is an innovation?

An innovation refers to an idea perceived as new by an individual. All innovations need not be new to all people. What is new to one individual may be a known thing for another individual. Hence, the term innovation is applied to an idea which is perceived by an individual or group as something new to that person or to that group.

Diffusion is a process by which an innovation spreads. The diffusion process is the spread of a new idea from its source of creation to the adopters or users. Hence, the essence of the diffusion process is the human interaction, in which one person communicates a new idea to another person.



There are four elements in any analysis of the diffusion process: (1) innovation, (2) communication of one individual to another, (3) the social system, and (4) the time taken from the stage of innovation to the stage of adoption.

Stages in the Adoption Process

Five distinct stages have been identified by the scholars who studied diffusion and adoption process: (1) Awareness (2) Interest (3) Evaluation (4) Trial and (5) Adoption.

1) Awareness Stage

At the awareness stage, there is a broad exposure to the innovation, but the individual does not have sufficient information about the innovation. He is yet to get motivated either to seek further information or to act upon it.

2) Interest Stage

At the interest stage, the individual shows interest in the new idea, and makes an effort to seek additional information. However, the person is still undecided about its application. The function of the interest stage is mainly to seek and get more information about the idea.

3) Evaluation Stage

At the evaluation stage, the individual mentally applies the innovation to one's own situation, and then decides whether to try it or not.

4) Trial Stage

At the trial stage, the individual uses the innovations on a pilot stage to decide about its utility and relevance to one's own situation. It was observed that most persons would not adopt an innovation without trying it on a pilot basis.

5) Adoption Stage

At the adoption stage, the individual decides to continue the innovation. Adoption implies sustained use of the adoption process. The rejection is, thus, a decision not to adopt an innovation. Though, on the basis of the diffusion research, there is no evidence to show that all the five stages will be visible of being scrupulously followed by all the adopters.

Information Sources and their Relevance at Various Stages of Adoption

While personal communication connotes the direct face to face contact, impersonal communication, mediated through mass communication channels, does not involve face to face exchange of ideas. Communication through the mass media like the print, radio, TV and

film is most effective in providing various options and alternative choices. They are effective in drawing the attention of the individuals. Hence, the mass communication channels are found to be most important in the evaluation stage of the adoption sources. Inter-personal communication, through extension workers, friends, and family members, can influence behaviour and facilitate transfer of ideas. The mass communication channels seldom effect decisions directly, although they operate through an intervening variable to influence behaviour. The information sources from outside the community (normally referred to as cosmopolitan) are most important at the awareness stage, and the local information sources from inside the community are the most important at the evaluation stage.

Factors Affecting the Rate of Adoption of Innovations

While some factors stimulate and facilitate quick diffusion of innovations and transfer of technologies, some others inhibit adoption. One of the hurdles to change is cultural incompatibility. Certain social systems do not encourage adoption of innovations. Individuals in such a system are very slow and rigid in accepting new ideas, practices and technologies. The rice-eating people show a marked resistance to accepting coarse grain, since it involves a change in the food-habits. Many studies have substantiated that new crop varieties, which give higher yields and better incomes, have been rejected on the ground of taste, fear of ill-health, and unacceptability as food. Thus, cultural incompatibility and mismatch with the existing social system, which are considered to be very strong inhibiting factors in the process of diffusion of innovations. Other important factors identified in this context are: (1) relative advantage of the innovation, (2) perceived impact of the adoption on social relations, (3) scope for reversibility in case the innovation is to be rejected, (4) complexities involved in the acceptance of the innovation on sustainable basis. The simpler the innovation the higher is the scope for adoption.

Classification of Adopters

Basing on the rate of adoption and the time lag between initial exposure to final adoption, diffusion researchers have classified adopters into five distinct categories: (1) venturesome innovators, (2) early adopters, (3) early majority, (4) late majority, and (5) laggards. The venturesome innovators are the most eager members of society to try new ideas and adopt new practices. They are enterprizing and willing to take risks. Usually they belong to the cosmopolite category. The early adopters, on the other hand, belong to the local system; they follow the venturesome. The innovators, becoming the reference groups for the subsequent late adopters, constitute the early majority and late majority. The laggards are very slow in adoption. They are rigid and hard to be convinced, stick to the old methods, and resist change.

Check Your Progress 5

Note: i) Use the space given below for your answer.

ii) Compare your answer with the one given at the end of this unit.

1) Explain, in one sentence, the meaning of diffusion.

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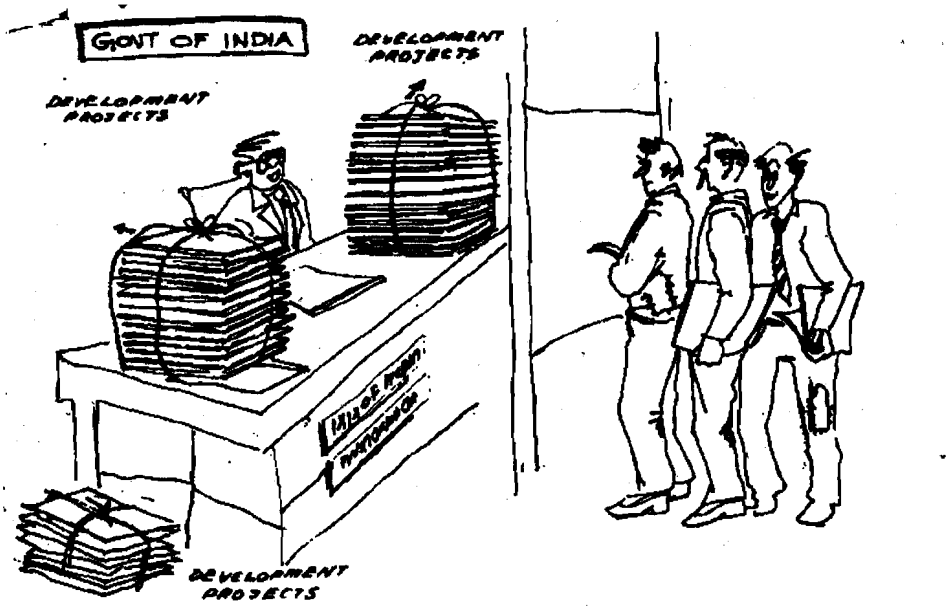
3.4.5 Models of Agricultural Extension in India

In this section, a comparative analysis of three models of agricultural extension and communication systems are presented: (1) The Intensive Agricultural Distinct Programme (IADP), (2) Agricultural Extension under the Panchayat Raj Set-up, and (3) Agricultural Extension under the Training & Visit System (T & V).

IADP was launched in the early sixties. Initially, the Project Executive Officer (EO) was assisted by a number of subject matter specialists (SMS). Later, when the IADFP Programme

VLWs was drastically reduced for extension work in the villages. Studies conducted by the NIRD researchers at Raipur in MP revealed poor linkage between research and the field level functionaries. Similarly, there was no involvement of the field level functionaries in the planning of the agricultural development programme.



Due to lack of periodical training, the VLWs and their supervisors (AEAs) did not have adequate knowledge of the important areas of paddy cultivation, which is the staple food in the district. The withdrawal of the SMSs, reduction of field level extension staff like AEOs and VLWs, and lack of regular training have diluted the programme. It gained status as a special programme after the introduction of the Integrated Rural Development Programme (IRDP), in 1978. The main contributions of the IADP/IAAP programme were the better supply of inputs like seeds and fertilizers, and reducing the gap between the extension staff and the farmers. The level of knowledge of the farmers about improved farm practices has significantly increased.

Among the communication channels, the radio and demonstrations were considered to be the most useful by the farmers. Other methods, such as the farmers training film shows, agricultural exhibitions and conducted tours for the farmers, were found too low in usage and value (NIRD: 1986).

The agricultural extension pattern under the Panchayat Raj System, where the District Agricultural Officer (DAO) at the Zilla Parishad level was responsible for planning and implementation of agricultural schemes, was studied in Amaravati district. The technical competence of the Gram Sevaks, at the village level, was much below the mark, since most of them had no training in agriculture. A significant amount of time of the Agricultural Extension Officer (AEO) and the VLWs was consumed in preparing returns and reports. The VLWs having been made responsible for activities like family planning, health, sanitation, social welfare, etc., were spending less time on agricultural development.

Information flow from the radio, agro-service centres, and local newspapers was high, and it was rated to be very useful. The credibility of the VLW was found to be low. Thus, the effective use of agricultural extension under the Panchayati Raj System was comparatively less effective.

The operation of the T & V system, studies in the Kota district of Rajasthan, reflected that the contact of the farmers with the VLWs was limited. It was observed that the extension workers were not working through the contact farmers, as envisaged by the T & V system. The contacts with VLW were almost the same for all types of farmers — both contact and non-contact farmers. They were more often meeting the farmers at a public place in the village. The level of knowledge of the farmers about the improved practices relating to the major crops of the area was low. The T & V system did not help the farmers to increase their knowledge. It is necessary to use other effective extension methods like demonstrations.

3.4.6 · Case Studies on Communication-support to Agriculture

It is proposed to briefly outline in this section a few case studies of development support communication through the mass media. These case studies represent only Indian experiences and do not cover experiments outside India.

1) Radio Rural Forums

Basing on the Canadian experience, the Radio Rural Forum experiment was conducted by the All India Radio at Poona during 1956. The Project covered 156 villages where listening and discussion groups were organized in each of the selected villages. A programme of 30 minutes duration was broadcast on two days in a week covering agriculture and allied subjects to help promote rural development. Prof. Paul Neurath on behalf of the Tata Institute of Social Sciences conducted on evaluation study, and came out with interesting results: (1) The radio is a very suitable medium to communicate with rural audience and to spread the message of development. (2) A majority of the listeners in the villages appreciated the value of the programme.

The Farm and Home (F & H) units were, subsequently, established at many AIR stations to provide wider support to the IADP programme and the contribution of the radio is widely acknowledged by farm scientists in increasing agricultural production and achieving a green revolution.

2) Krishi Darshan Programme on Television

In 1967, Delhi Television Centre launched the Krishi Darshan Programmes at the behest of Prof. M.S. Swaminathan of the Agricultural Research Institute (IARI) and Dr. Vikram Sarabhai, the eminent space scientist. The objective of these programmes was popularization of modern methods of agriculture through the television. Community sets were installed for group viewing in 80 selected villages. The evaluation report prepared by the NCERT, in 1968, indicated significant knowledge gains in farm technology on account of exposure to Krishi Darshan Programme. But, subsequent studies indicated that these TV programmes did not help the small and marginal farmers very much. The contact was more useful to the rich farmers.

3) School-on-the-air of AIR

All India Radio (AIR), Hyderabad and Bangalore stations introduced, during the early seventies, the School-on-the-air programmes for education of the farmers in improved methods of farming. Specific topics like rice cultivation, sugarcane cultivation, dairy farming, poultry keeping, etc., were covered under these broadcasts. Subsequently, the farm school-on-the-air, became a regular feature of the Farm & Home Units of AIR at many other stations. The studies conducted by the Audience Research Unit of the All India Radio established the wide patronage of the farmers to these broadcasts. In terms of utility and practical guidance, the programme were rated very high.

4) SITE Programme

The Satellite Instructional Television Experiment (SITE) was conducted by the Space Applications Centre of the Indian Space Research Organization for one year from 1st August, 1975, taking on loan the multi-purpose Applications Technology Satellite (ATS6) from NASA of the United States of America. The experiment covered 26 districts selected from 6 clusters in A.P., Bihar, Karnataka, Madhya Pradesh, Orissa and Rajasthan states. It was a massive experiment conducted in development support communication, covering as many as 2330 villages. Community TV sets were installed for group viewing. The programme pattern was so designed that the instructional programmes covered agriculture, animal husbandry, family planning, health, hygiene & nutrition, national integration and entertainment.

The evaluation studies, conducted by ISRO and other national organizations confirmed the success of the SITE in terms of creating wider awareness and increasing the knowledge levels, specifically in areas like health, political consciousness, and overall development. But, in the areas of agriculture and animal husbandry, no significant gains were observed. The evaluation

studies also listed the benefits accrued to the rural population, specifically to the poor and under-privileged, who could not have otherwise got the advantage of the TV exposure organized through community viewing at public places in the villages.

3.5 LET US SUM UP

In this unit, we have broadly covered agricultural extension and other communication systems used for the propagation of new ideas and technologies for developmental purposes in the rural areas. The development support communication (DSC) as a concept covers application of communication principles and practices in all areas of human enrichment. In the extension effort, the focus is on helping the people to help themselves. Diffusion of innovations forms the thrust area in the extension process. New ideas, practices and technologies are introduced through persuasive methods of communication. Adaptation of innovation is a time-consuming process, and it requires the best efforts to provide knowledge and change human behaviour.

Cultural incompatibility acts as a major inhibiting factor in the diffusion. So, one has to take care that the new ideas, new practices and new technologies fit in and match with the existing social system and cultural practices.

3.6 FURTHER READING

Lerner, Daniel and Schramm, Wilbur, eds., 1967, *Communication and Change in Developing Countries*, East-West Communication Centre: Honolulu.

Ostman, Ronals, E., ed., 1989, *Communication and Indian Agriculture*, Sage Publications: New Delhi.

3.7 CHECK YOUR PROGRESS: MODEL ANSWERS

Check Your Progress 1

1) The main objective of development support communication is to communicate the latest skills, knowledge, and innovation to the farmers so that by adopting them the farmers may increase their output manifold.

2) a) Innovators or knowledge generation

   b) Political leaders/government

   c) Farmers or users of knowledge

Check Your Progress 2

1) In the 50's and 60's, 'development' was measured by GNP and per capita income.

2) An alternative approach to development was to put the quality of life in the centre with decentralization and participation at the grassroots level as the two main pillars of measurement.

   The other alternative approach to development was to make each and every society self-reliant with participation of the grassroot level citizens in every development project. Communication became a two-way affair in a given context. Previously, communication was focused only on the communication, and was considered a one-way affair.

Check Your Progress 3

1) a) production of audio, video materials for the purpose of communicating innovative knowledge to the farmers,

   b) development of special skills,

   c) budgetary,

   d) marketing.

Check Your Progress 4

1) T & V is the short form of training and visit. The two main objectives to:

visit various places and train the extension workers and farmers on the spot; and to create a network among villages, districts, and states having the same agricultural conditions, so that information could be imparted properly.

Check Your Progress 5

1) Diffusion is a process by which an innovation is adopted by a person or a group of persons.

2) a) religious and cultural belief,

b) lack of proper and complete information,

c) personal likes and dislikes,

d) incompatibility with the existing social milieu,

e) lack of fund.

Activity 2

Phase A: Find out

i) the area allocated for reforestation,

ii) the varieties of saplings available,

iii) the suppliers of saplings.

Phase B: Formulate messages regarding:

i) the advantages of planting trees,

ii) the relationship between the human beings and plants,

iii) rationale for taking care of plants.

Phase C: Find out:

i) the literacy level,

ii) the level of awareness of the people regarding environment,

iii) the communication infrastructure available.

Phase D: Choose the easily available and appropriate channel