

## CHAPTER-10

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# ROLE OF EXTENSION EDUCATION IN RURAL DEVELOPMENT FOR SELF-RELIANT IN INDIA

*Dr. Alimul Islam, Assistant Professor*

*Department of Agricultural Extension, Institute of Agriculture & Natural Sciences, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur, Uttar Pradesh, India- 273009*

### 10.1 INTRODUCTION

Extension is an integral part of agricultural and rural development programmes in India. It is a system where people are motivated through a proper approach to help them by applying science in their daily lives, in farming, home making and community living. Extension is a process of working with rural people in order to improve their livelihoods. This involves helping farmers to improve the productivity of their agriculture and also developing their abilities to direct their own future development. And Education word is derived from the Latin root 'ex' meaning out and 'tension' meaning stretching. Education is the process of facilitating learning or acquisition of knowledge, skills values, and habits. Under the education method, we can include teaching training discussion, directed toward research. Education takes place themselves as well as in front of an instructor Education can take place in formal or informal settings and any experience that has a formative effect on the way one thinks, feels, or acts may be considered educational.

Extension is a term that is open to a wide variety of interpretations. Each extension agent probably has his own understanding of what extension is. This understanding will be based on past experience and the particular type of extension service in which the agent is working. In other words, there is no single definition of extension which is universally accepted or which is applicable to all situations. Furthermore, extension is a dynamic concept in the sense that its interpretation of it is always changing. Extension, therefore, is not a term that can be precisely defined, but one which describes a continual and changing process in rural areas. Agricultural extension (also known as agricultural advisory services) plays a crucial role in boosting agricultural productivity, increasing food security, improving rural livelihoods, and promoting agriculture as an engine of pro-poor economic growth.

### 10.2 DEFINITION OF EDUCATION

Education is the process of developing the capability of the individual so that they can adequately respond to their situation. We can also define education as process of bringing desirable change into the behavior of human beings. Webster defined education as the process of teaching to develop the knowledge, skill, or character of the student. "Sociologist Rodney Stark declares that Education is the cheapest, most rapid and most reliable path to economic advancement under present conditions,"

### 10.2.1 TYPES OF EDUCATION

There are three types of education, namely, Formal, Informal and Non-formal. Each of these types is briefly described below.

- **Formal Education** : Formal education corresponds to a systematic, organized education model, structured and administered according to a given set of laws and norms, presenting a rather rigid curriculum as regards objectives, content and methodology. It is characterized by a contiguous education process.
- **Informal Education** : Informal education is quite diverse from formal education and, particularly, from non-formal education, although in certain cases it is capable of maintaining a close relationship with both. It does not correspond to an organized and systematic view of education; informal education is a lifelong process in which portions of one's knowledge, skill, attitude and insight from daily experiences and exposure to the environment at home.
- **Non-Formal Education**: It is organized and systematic education activity carried on outside the framework of the formal system to provide a selected type of learning to a particular group of the population

### 10.2.2 DEFINITIONS OF EXTENSION

The word extension is derived from the Latin roots 'ex' - meaning 'out' and 'tension' meaning 'stretching'. Stretching out is the meaning of extension. The word 'extension' came to be used originally in USA in 1914. In other words, the word extension signifies an out of school system of education. Education is an integral part of extension. The basic concept of extension is that it is education. Extension means that type of education which is stretched out to the people in rural areas, beyond the limits of the educational institutions to which the formal type of education is normally confined.

### 10.2.3 BASIC DEFINITIONS RELATED TO EXTENSION

- ✚ According to **Leagans (1971)**, Extension education is an applied social science consisting of relevant content derived from physical, biological and social sciences and in its own process synthesized into a body of knowledge, concepts, principles and procedures oriented to provide non-credit out of school education largely for adults.
- ✚ According to **Reddy, 1993** Extension Education is a science that deals with the creation, transmission & application of knowledge designed to bring about planned changes in the behavior-complex of people, with a view to helping them live better by learning the ways of improving their vocations, enterprises & institutions.
- ✚ According to **Singh, 1994** Extension Education is a science that brings about desirable changes in the behavior of the concerned persons through educational methods, so as to improve their general standard of living with their own efforts. In fact, it deals with the designs & strategies

of the transfer of technology to the concerned persons. In other words, what is taught to the farmers is not Extension Education, though its knowledge is applied for the effective & efficient communication of various programs of change.

- ✚ According to the **National Commission on Agriculture, 1976** Extension is an out of school education and services for the members of the farm family and others directly or indirectly engaged in farm production to enable them to adopt improved practices in production, management, conservation and marketing. Several authors defined extension in various ways emphasizing the importance of one or the other aspect of extension.

### **10.2.4 TYPES OF EXTENSION**

There is no one universal type of extension but a variety of activities and approaches which can be called extension. It has already been stated that since agriculture is the basis of a rural economy, agricultural extension is the most common type of extension to be found in rural areas. But the areas of knowledge and new ideas that farmers and their families require are not restricted to agriculture. There are other aspects of family life in which new knowledge and practices can lead to improvement. Extension is any activity that works with farmers and their families in order to improve the economic and social conditions of their lives and to develop their ability to take responsibility for their own future development. This extension, however, can take different forms and it would be useful to review the two principal ones.

### **10.3 AGRICULTURAL EXTENSION**

There is probably more extension agents involved in agricultural activities than in any other aspect of rural life. Given the importance of agriculture and the need to produce food both for the farm family and for the nation as a whole, this emphasis upon agricultural extension is understandable. Some agricultural extension services are based upon a single crop, while others adopt more of a "whole farm" approach. The choice is very much dependent upon the local agricultural system and the national crop requirements.

In regions where cash crops such as cotton, cocoa or sugar grow, the single crop extension approach is more common. An agricultural extension service offers technical advice on agriculture to farmers and also supplies them with the necessary inputs and services to support their agricultural production. It provides information to farmers and passes to the farmers' new ideas developed by agricultural research stations. Agricultural extension programs cover a broad area including improved crop varieties, better livestock control, improved water management, and the control of weeds, pests, or plant diseases. Where appropriate, agricultural extension may also help to build up local farmers' groups and organizations so that they can benefit from extension programs. Agricultural

extension, therefore, provides the indispensable elements that farmers need to improve their agricultural productivity.

#### ❖ **NON-AGRICULTURAL EXTENSION**

In the absence of a collective term to cover the other types of extension, it is convenient to refer to them all as non-agricultural extension. This term includes all activities and efforts not directly related to agriculture or livestock production, but which are important to the farm families. Home economics, family health and nutrition, population education and community development are all non-agricultural extension activities.

#### ❖ **PRINCIPLES OF EXTENSION**

Extension activities are widespread throughout the developing world and most governments have set up formally structured extension services to implement extension programs and projects. The practice of extension is supported by budget, offices, personnel and other resources. Before examining extension in detail in later chapters, however, it will be useful to consider the principles that should guide it.

#### ❖ **EXTENSION WORKS WITH PEOPLE, NOT FOR THEM**

Extension works with rural people. Only the people themselves can make decisions about the way they will farm or live and an extension agent does not try to make these decisions for them. Rural people can and do make wise decisions about their problems if they are given full information including possible alternative solutions. By making decisions, people gain self-confidence. Extension, therefore, presents facts, helps people to solve problems, and encourages farmers to make decisions. People have more confidence in programs and decisions which they have made themselves than in those which are imposed upon them.

#### ❖ **EXTENSION IS ACCOUNTABLE TO ITS CLIENTS**

Extension services and agents have two sets of masters. On the one hand, they are accountable to their senior officers and to the government departments that determine rural development policies. Agents are expected to follow official policies and guidelines in their work. On the other hand, extension is the servant of the rural people and it has the responsibility to fulfill the needs of the people in its area. This means that the rural poor should have a say in deciding how effective extension actually is. One measure of effectiveness is to see how well policies and plans have been carried out. An equally important measure is the extent to which incomes and living standards of the rural people have increased as a result of extension work. Extension programs, therefore, are based on people's needs, as well as on technical and national economic needs. The extension agent's task is to bring these needs together. For example, an important part of government policy may be to increase the amount of food grown and sold in the country. By choosing to encourage the mass of small farmers to increase their output by improving their farming methods, national needs and farmers' needs can be satisfied together.

**❖ EXTENSION IS A TWO-WAY LINK**

Extension is not a one-way process in which the extension agent transfers knowledge and ideas to farmers and their families. Such advice, which is often based upon the findings of agricultural and other research stations, is certainly important but the flow of information from farmers to extension and research workers is equally important. Extension should be ready to receive farmers' ideas, suggestions, or advice, as well as to give them. This two-way flow of ideas can occur at different stages.

**Scope of Extension Education** Extension appears to have unlimited scope in situations where there is a need for creating awareness amongst the people and changing their behavior by informing and educating them. Kelsey and Hearne (1967) identified nine areas of program emphasis, which indicate the scope of agricultural extension.

- ✚ Efficiency in agricultural production.
- ✚ Efficiency in marketing, distribution and utilization.
- ✚ Conservation, development and use of natural resources.
- ✚ Management on the farm and in the home.
- ✚ Family living.
- ✚ Youth development.
- ✚ Leadership development.
- ✚ Community development and rural area development.
- ✚ Public affairs.

The following statements will further amplify the scope of the extension.

- Extension is fundamentally a system of out-of-school education for adults and youths alike. It is a system where people are motivated through a proper approach to help themselves by applying science in their daily lives, in farming, home making and community living.
- Extension is education for all village people.
- Extension is bringing about desirable changes in the knowledge, attitudes and skills of people. Extension is helping people to help themselves.
- Extension is working with men and women, boys and girls, to answer their felt needs and wants.
- Extension is teaching through "learning by doing" and "seeing believes".
- Extension is working in harmony with the culture of the people.
- Extension is a two-way channel; it brings scientific information to village people and it also takes the Problems of the village people to the scientific institutes for solution.

- Extension is working together (in groups) to expand the welfare and happiness of the people with their own families, their own villages, their own country and the world.
- Extension is development of individuals in their day-to-day living, development of their leaders, their society and their world as a whole

#### **10.4 IMPORTANCE OF EXTENSION EDUCATION FOR RURAL DEVELOPMENT**

Extension as an out of school education and services for the members of the farm family and others directly or indirectly engaged in farm production to enable them to adopt improved practices in production, management, conservation and marketing. Several authors defined extension in various ways emphasizing the importance of one or the other aspect of extension.

##### **❖ KNOWLEDGE AND SKILLS**

Although farmers already have a lot of knowledge about their environment and their farming system, extension can bring them other knowledge and information which they do not have. For example, knowledge about the cause of the damage to a particular crop, the general principles of pest control, or the ways in which manure and compost are broken down to provide plant nutrients are all areas of knowledge that the agent can usefully bring to farmers.

The application of such knowledge often means that the farmer has to acquire new skills of various kinds: for example, technical skills to operate unfamiliar equipment, organizational skills to manage a group project, the skill to assess the economic aspects of technical advice given, or farm management skills for keeping records and allocating the use of farm resources and equipment. The transfer of knowledge and skills to farmers and their families is an important extension activity and the extension agent must prepare himself thoroughly. He must find out which skills or areas of knowledge are lacking among the farmers in his area, and then arrange suitable learning experiences through which the farmers can acquire them.

##### **❖ TECHNICAL ADVICE AND INFORMATION**

Extension also provides advice and information to assist farmers in making decisions and generally enable them to take action. This can be information about prices and markets, for example, or about the availability of credit and inputs. The technical advice will probably apply more directly to the production activities of the family farm and to the action needed to improve or sustain this production. Much of this technical advice will be based upon the findings of agricultural research. In many instances, however, farmers are also sources of valuable advice and information for other farmers, and agents should always try to establish a farmer-to-farmer link.

##### **❖ FARMERS' ORGANIZATION**

As well as knowledge, information and technical advice, farmers also need some form of organization, both to represent their interests and to give them a means for taking collective action. Extension, therefore, should be concerned with helping to set up, structure and develop

organizations of local farmers. This should be a joint venture and any such organization should only be set up in consultation with the farmers. In the future, these organizations will make it easier for extension services to work with local farmers, and will also serve as a channel for disseminating information and knowledge.

#### ❖ **MOTIVATION AND SELF-CONFIDENCE**

One of the main constraints to development that many farmers face is isolation, and a feeling that there is little they can do to change their lives. Some farmers will have spent all their lives struggling in difficult circumstances to provide for their families with little support or encouragement. It is important for extension to work closely with farmers, helping them to take the initiative and generally encouraging them to become involved in extension activities. Equally important is to convince farmers that they can do things for themselves, that they can make decisions and that they have the ability to break out of their poverty.

The above are the four fundamental elements of the extension process. It is not suggested that all extension activities must contain each of these elements, nor that some are more important than others. Clearly, the extension approach will be determined by the particular circumstances. However, an overall extension service should be based on these elements and should seek to promote them within the rural areas. Sometimes the local farmers' problems will demand prompt information and advice; on other occasions, more patient work of organization and motivation may be required. An extension service must be able to respond to these different demands.

### **10.5 RURAL AREAS AND THEIR CHALLENGES**

The rural-urban gap exists all over the world and eliminating inequality in access to services and opportunities is the main challenge for policymakers. The rural population is facing many challenges some of which are discussed below.

#### ❖ **HOME TO POOR**

The rural areas are considered as a home for the poor. Generally, the rural population is poor as compared to the urban areas. The unequal distribution of assets, working facilities, and uneven land ownership cause high poverty in rural areas. Therefore, the poverty rate in the rural population is 17.2% three times more than in urban areas. Endemic poverty has caused many negative consequences for the rural population. Especially rural population in countries of South Asia, Sub-Saharan Africa, and Latin America is more vulnerable to extreme poverty, climate change events (floods, heatwaves, disease, etc.) and social exclusion.

#### ❖ **GENDER INEQUALITY**

Gender inequality can be observed more in the rural area as compared to urban areas. The women have limited access to services, capital, productive infrastructure, and technologies. Their limited freedom inhibits the women to perform their role actively in the development of the rural areas.

According to International Fund for Agriculture Development, women spend 12–13 h in different daily activities, but they remain unpaid.

#### ❖ **Limited employment opportunities**

Rural areas are normally characterized by seasonal employment opportunities. Unemployment normally prevails more in rural areas. Moreover, underemployment is also a common problem in rural areas. The low productive jobs and low-waged activities discourage the rural youngsters which ultimately tend to migrate to the urban areas.

#### ❖ **Subsistence economy**

The majority of the rural population in many developing and even developed countries relies on agriculture as a source of livelihood. In developing countries, the majority of the farmers are small farmers, and the traditional economy is based on subsistence agriculture. Many researchers have estimated that there are around 500 million small farms (landholding up to 2 ha) in the world which makes almost 70–80% of the total farms in the world. Subsistence agriculture is volatile to extreme weather shocks, floods, droughts, degradation of resources.

#### ❖ **Dependence on agriculture and related issues**

The rural people are majorly depending on agriculture for their earnings. As a major source of earning, agriculture still faces many challenges and problems. The small landholding is one of the main problems impeding the development of rural areas. The 12% of the agricultural area is operated by small farmers having less than 2 acres and 75% of family farms cultivate 75% worlds' agricultural land. Small farming leads to low adoption of modern technologies in agriculture. Low adoption of modern technologies is a constraint to improve productivity mainly caused by the low level of income of small farmers, low awareness, and low assets. The small and family farms are mostly low adopters of modern technologies due to their limited knowledge, the limited desire for adoption, and low level of assets. Agricultural is commonly a profession of illiterate people. They are following the traditional farming practices and have no attention toward the adoption of different modern technologies. Deteriorating quality of water and land is also a growing problem of agriculture. The monoculture cropping system is commonly practiced in rural areas due to the limited availability of land. To attain a high level of yield, the small farmers try to apply more fertilizer, pesticides, and chemical inputs which degrade the health of the soil and also negatively affect the environment. It lowers agricultural productivity and affects the quality of life of the farmers.

#### ❖ **Lack of access to financial services**

One important constraint discussed by many scholars is no or low access to financial services. Rural people with marginal demand for credit are often ignored by conventional financial institutions. Lack of access to financial services hampers the development of rural areas in many ways. Small (subsistence) farmers are resource scarce. Scarcity of financial resources causes problems in the adoption and use of modern technologies, seeds, and good quality inputs. Lack of financial capital

also leads to the delayed application of inputs. This all results in low productivity>low income>low living standards. Therefore, subsistence farmers in many regions of the world are trapped in this cycle of low productivity and poverty

### **10.6 RURAL EXTENSION COVERS MANY ASPECTS OF RURAL LIFE**

When talking of extension and extension agents, therefore, all activities of the above type are included. These activities also involve the basic elements and principles of extension outlined earlier in this chapter, such as knowledge, learning and practice. Home economists and community development workers, therefore, are extension agents who deal with farm families in the same way as agricultural extension agents. The only difference is their areas of concern. In fact, it is becoming increasingly common to talk of rural extension as a collective term that brings together all agricultural and non-agricultural extension activities. The feature common to both types of extension is that they work with families in rural areas and deal with problems in a rural environment. Their different programs and approaches have a common aim, which is the improvement of the lives of rural people, and they are both guided by common principles and ideals.

This guide, therefore, is a guide to rural extension and is relevant to both agricultural and non-agricultural extension agents. Given the predominance of agriculture in the rural economy, however, there will be some emphasis on agricultural extension within the guide. The understanding of extension, the methods used by extension agents, the planning processes involved and the qualities and skills required by agents are factors relevant to all forms of rural extension. The content and subject matter may be different, but the same general principles apply in both types of extension.

### **10.7 SOCIAL AND CULTURAL BARRIERS TO AGRICULTURAL CHANGE**

Although cultures and social structures are always changing, the process is often slow. In the short term, there will be features of society and culture that may act as barriers to change in agriculture. It is important that the extension agent be aware of the existence of such barriers and to take them into account in his work.

#### **❖ RESPECT FOR TRADITION**

Many rural societies look upon new methods with indifference and sometimes with suspicion. Respect for elders often results in the attitude that the old ways are best. Farmers not only fear the unknown and untried but they also fear criticism for doing something different from other farmers. In such situations, the motives of extension agents and others seeking to promote change can often be misunderstood. Village people may think that the extension agent is introducing changes to benefit himself. Such attitudes explain the behavior of farmers who seem to agree that a new method is good but are not prepared to put it into practice.

#### **❖ BELIEF IN ONE'S OWN CULTURE**

Members of all societies believe that their way of life is best. "These new methods of farming may be all right for some people but they are no good for us." This attitude results in a reluctance to try

something new. "How can it be better than our way?" and "We know what is best for us" are reactions that extension agents may meet in opposition to suggestions for change.

#### ❖ **PRIDE AND DIGNITY**

Farmers may be too proud to practice ways of farming which could result in other farmers looking down on them. For example, they might be too proud to carry cattle manure to the fields. Many young people leaving school look down on farming, even though some successful farmers earn more than most government employees and schoolteachers.

#### ❖ **RELATIVE VALUES**

Extension agents often emphasize the improved yield or cash return that can be gained by adopting new farm practices. However, farmers may value taste, appearance, or some other factor more than the level of output. They may also value their leisure time so highly that they are not prepared to work longer hours on their farms. Certain improved varieties of maize have been rejected by small-scale farmers in several countries because of their poor flavor, even though they have shown a much better yield than local maize. Farmers and their families have to eat what they produce as well as sell some of it, so taste and cooking quality is very important.

#### ❖ **RESPONSIBILITIES AND SOCIAL OBLIGATIONS**

Individuals within a society or a kinship group have responsibilities that they are expected to carry out. People who avoid such responsibilities anger other members of society. As an individual's income increases, obligations to society or family increase. The more money a farmer earns, the more help kinsmen will expect. This can be a very serious barrier to change if the individual sees little advantage in improving his or her position because there is not much personal benefit from the improvement. However, this may be overcome by concealing wealth, distributing cattle among friends, or burying or banking money so that relatives can be told that no money is available to help them. This may result, for example, in a farmer being reluctant to carry out visible farm improvements such as fencing, buying farm implements and other things which might suggest to kinsmen that the farmer is wealthier than they think.

#### ❖ **TRADITIONAL CEREMONIES**

Ceremonies such as weddings, funerals and religious festivals can take up so much time that the farmer may be unable to work to the maximum efficiency. The farmer is, therefore, unlikely to adopt new methods, which, while they might increase income, would mean that more time had to be devoted to working the farm and less to ceremonial and social obligations.

The extension agent needs to understand and be sensitive to these potential social and cultural barriers to change; however, by carefully selecting what he encourages farmers to do, and how to convey the message, their effect can be reduced. Winning the support of traditional community leaders, for example, may lessen the effects of tradition. Furthermore, by making sure that popular

food crops are included in agricultural programs and that the recommended varieties are acceptable on grounds of taste and cooking quality, the extension agent can increase the likelihood of his advice being accepted. Extension programs aiming at introducing new methods should take into account the possible effect on the whole society and its culture, and not merely the technical results of the methods recommended.

## **10.8 CONCLUSION**

Extension Education is the process of teaching rural people how to live better by learning ways to improve their farm, home and community institutions. Rural communities can benefit from Education by having more productive workers, increasing their overall income. Education boosts a person's ability to lead a group of people successfully and effectively since it gives them more information, confidence, skills, and experience. It helps people learn new skills and knowledge, which can improve their lives and the lives of their families. It also strengthens communities by providing opportunities for residents to connect and share resources. Extension helps in studying and solving the rural problems. Extension increases farm yields and improve the standard of living of farmers. Extension makes good communities better and progressive. Extension contributes to national development programmes. The scope of extension is mostly dealing with the problems concerning development programmes. It teaches people how to do something and to work out ways and means to satisfy their own felt needs. It teaches people how to recognize and solve problems of development.

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