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THE POSITION OF EXTENSION IN AGRICULTURAL DEVELOPMENT AND THE FACTORS AFFECTING IT

***Tayari E.¹, Jamshidi A.R.², Jasem Nejad M.² and Neisy A.²**

¹*Sama Technical and Vocational Training College, Islamic Azad University, Shoushtar Branch,
Shoushtar, Iran*

²*Department of Agricultural Mechanization, Collage of Agriculture, Shoushtar Branch, Islamic Azad
University, Shoushtar, Iran*

**Author for Correspondence*

ABSTRACT

Agricultural extension is one of the fundamental prerequisites for the achievement of sustainable agricultural development. Although, the new policies and programs in macro level in Iran focus on environmental protection and sustainable development, but studies show that most agricultural producers do not use required considerations in using inputs such as pesticides, and do not always follow the agricultural principles in using natural resources. At such time, it seems that one of the functions of agricultural educational, extension and executive organizations is guidance and encouragement of rural communities for optimal use of resources, inputs and natural resources, so that while increasing productivity in agriculture, rural community could benefit from the comprehensive and sustainable development. In fact, agricultural extension centers are those organizations that are directly involved in agricultural development and their main task is planning to resolve the agricultural problems with the participation of farmers. Extension is followed by making change in attitudes, tendencies, habits, and relationships between humans and one of its important tasks is to encourage people to learn it. So in a situation where all inputs are available, extension is most effective and with its complementary role, it helps speed up the process of achieving sustainable agricultural development. Findings obtained from experiences in agricultural extension system during the last decades suggest that more importance should be considered in new approaches for two-way communication and attracting people's participation in programs of agricultural extension and extension activities pave the way for mutual learning of promoter-farmer. In this paper, the function of the extension and its position in sustainable agricultural development, its determinants, as well as extension training methods are discussed.

Keywords: *Extension Plan, Extension Centers, Training, Sustainable Agricultural Development*

INTRODUCTION

An Introduction to the Concept of Agricultural Extension and its Objectives

Despite the importance of natural resources in social and economic development of the country, the destruction rate of these resources due to rapid population growth, excessive and unplanned exploitation, lack of public awareness of the use of inputs and pesticides and lack of proper utilization of natural resources are continuing in a rate more than ever. In this context, public participation in natural resource management and creating culture through the use of appropriate extension methods and patterns may protect and restore natural resources.

According to George Axing, agricultural education and extension has a significant role in agricultural development. In fact, the fundamental and vital importance of this key tool is because that it concentrates on the role of "human resources" for development of agriculture, and aims to empower human resources (agricultural promoters and experts) and disseminate technical knowledge between manufacturers to increase the quantity and quality by raising the productivity of production factors.

Agricultural extensions one of the basic prerequisites for achieving sustainable agricultural development and helping people to think and foster a spirit of self-seeking in order to move in the direction of the development. The extension aims to achieve change and development, learning and teaching and it is therefore based on the evolution of "individual" as the unit of educational and research activities. This

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school's philosophy is based on three entities: education, self-help and cooperation. Thus one can say that the school of extension through the transfer of knowledge, innovations and new skills, exchange information and encourage people to think and seek, fosters individual as one of the constituent elements of community to attain new knowledge and keep commitment in human responsibilities in their community.

Agricultural extension is responsible to streamline the research findings and submit them to the agricultural population in a form that is understandable to them.

Effectiveness of agricultural extension system to disseminate technologies is dependent on four basic elements. Encouraging political system of agriculture, the environmental structure guiding the dissemination of technology, the continuous demand for science and technology and finally, effective and timely delivery of knowledge and technology from research authorities and other sources involved in the process.

In general, objectives of agricultural extension can be expressed as:

(1) Transfer of knowledge from researches to agriculture, (2) consultation with farmers in decision making, (3) training and support for similar decisions in the future, (4) the ability of farmers to find their way, 5 stimulate the appropriate agricultural development.

The Effect of various Factors on Agricultural Extension

Ecological Factors

Agricultural extension, particularly in developing countries should be done in a complex, diverse and risk-prone environment. In this context, extension should be focused on the diversity in the various fields and regions of agricultural ecology and efforts to transfer technology tailored to the needs and problems of farmers in each of the areas of technology transfer.

Economic Factors

Economic environment or domain is affecting on rate of extension in different ways. One of the most important factors is the level of economic development of the country. The amount of government investment in the public extension sector is also one of the factors that is governed by the presence or absence of the structural reform program, the degree of economic dependency on agriculture and share of agriculture in employment and GDP in comparison with other economic sectors like industry and services. On the other hand, the situation of utilization units and the percent of small and poor farmers are very effective in defining the structure and functions of the extension system.

Political Factors

Rapid changes in policy at the national level with the top executives switching and transport undermine the leadership in extension organizations, while the outbreak of war and political upheaval make treating the extension activities impossible.

Social – cultural Factors

High rates of illiteracy and low literacy, language diversity and local dialects can be obstacles for rapid high-quality transfer of technology. Gendered division of labor and patterns of women's participation in agriculture have a certain impact on extension system.

Infrastructural Factors

If transport and road infrastructures of an area are in appropriate, it would cause extension to have difficulty in doing their missions, and the farmers would not have suitable and easy access to inputs market and products.

Institutional Factors

Extension acts in an institutional environment that there are other private and public organizations that they directly and indirectly have activity to the development of agriculture. The manner of research planning and policy making, and how to design and manage the relationship between research and extension would weaken or strengthen the effectiveness of the extension.

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Table 1: Individual training methods

Home and farm visits	This method requires a lot of time and high costs and with a fixed number of promoters, extension service coverage decreases. Despite these limitations, the individual home and farm visit has many benefits and unique functions.
Client's visit from department of extension	In this method, the client personally comes to the department of extension for getting information and help and it is usually common in industrialized countries.
Informal contacts	This meetings that are held randomly (as in religious ceremonies, feasts, etc.), create an opportunity to strengthen personal and professional relationships between promoter and farmer.
Telephone call's method	Telephone call is one of these methods that can be used to provide counseling services for extension.
Communication through letters	Drafting and responding to a letter is a crucial skill for promoters and one must think about it. Otherwise, problems would be arisen such as the use of complex technical words or typing.
Model farmer	Rural farmers has always been imitated as a model for villagers and villagers referred to them in dealing with technical issues, accept their instructions, and finally as an instructor in an informal educational environment, cause the release of Innovations that have better desired social values.

Methods of Extension Education

Educating promoters and instructors need to help them prepare their message carefully and use proper materials and tools to create interest in the audience and villagers to get better training. They should use a language that local and rural people understand and speak simply as far as possible.

They should be described that establishing mutual understanding between the promoters and the people who receive education would be the duty of promoters and instructors and when facing with a disappointment or indifference from rural people who are trained to the development, they should not give up and surrender responsibilities to people.

The promoters must also learn how to work with people and rural people, rather than working in their stead. It is only the people who can decide on how to change their lives and it is not the responsibility of experts and promoters.

Participation in development only in collaborative and interactive activities can get out of papers and be realized. In addition, the extension and education should be included all its audience and could not only be specific to some groups.

The criteria for selection of suitable extension methods exist that some of them are:

- (1) Cost,
- (2) skill,
- (3) complexity,
- (4) available resources,
- (5) participation,
- (6) message,
- (7) audiences,
- (8) complementarity principle

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Table 2: Group Training Techniques

Practical representations	Practical representations allow people to compare the old and new methods. A well-designed practical representation should be eloquent and expressive.
The field day	On these days, appropriate fairs such as fairs of agricultural instruments, seeds and educational materials are often held. The purpose of the field day is to provide an opportunity for extension clients to personally observe successful agricultural methods and to take questions. This day is to create an educational environment in which contact and informal learning are done.
Field trip	In the field trip, a group of farmers with agricultural extension staff are setting off a place to observe agricultural practices and plans and extension presentations that are not available in their area.
Tournament	The Tournament prepares farmers, especially young farmers, and create a strong incentive to mobilize and equip their forces and also provide facilities to enhance skills in them.
Informal discussions	Discussion groups are usually smaller and more informal than associations of farmers. The purpose of this group is discussing agricultural issues of mutual interest.
Speech	It is a personal and formal method in which a person speaks to a group of audience. Speech is to provide a collection of organized information to audience, but a major obstacle in the way is the listener's passive role. If the speaker did not have a complete understanding of the subject matter and the style of delivering speech, it strongly reduces the audience attention to his/her statements.
Method of problem solving	In this method, learning activities are arranged so that they can arise problems in learner's mind, and they are interested to find a solution to that problem with their efforts.
Q & A method	The purpose of the question and answer is to stimulate thinking, abilities and interests and to strengthen the power of independence and analysis in learners.
Seminar	Seminar is usually considered for use in advanced stages of the study so as to provide an opportunity for in-depth study of a problem or a range of issues by experts.
Workshop	In a workshop, skill, technique and the desired operation are trained to participants so that they can immediately apply it. Workshops can be an effective learning tool because each of participants works intensively on the production of a specific product from one to several days.

In general, methods of extension education can be divided into two groups that are segregated in Tables 1 and 2.

Conclusion Results and recommendations

Among the best methods of extension practices include people's participation in natural resource management and creating culture using the production of extension publications, contact promoters, and encourage farmers to implement extension plans. Three factors of economic crisis and budget cuts, poor performance of some public extension programs and agricultural dependence on more specialized knowledge and technology, led to new thinking about the best way of providing agricultural extension services and the privatization of agricultural extension as a strategy is faced with public interest in most parts of the world.

In country, we are still unable to achieve fairly complete network of mutual relationships and interactions between the three elements of research, extension and farmer. The major weakness governing these

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relationships are weak and ambiguous relationship between farmers and research centers so that there is no feedback from the farmers to these centers and the extension act weakly in receiving feedback from farmers and transfer to the research centers.

To solve such problems, the following is recommended:

- Changing organization-centered attitudes toward the holistic and participatory approaches.
- Consideration and leading organizations to participatory and systematic approaches for participation of the three elements of research, extension and farmer.
- Participate extension in the approval process for research –applied projects.
- Selection of the research and experts and extension proportional to the area conditions in professional fields
- Providing the basis for creating culture by different ways of extension and promotion including publication and broadcasting.

In order for greater involvement of farmers, the following is recommended:

- Complete revision of the guidelines and regulating mechanisms with the participation of farmers.
- Involving farmers in the process of developing knowledge and making knowledge and agricultural information system mutual.
- Emphasize on personal relationships (between farmers and experts).
- Assign some part of authorities to farmers to implement plans.
- Encourage farmers to form local groups.
- Systematic support for the training of farmers.
- Delegate local responsibilities to farmer itself.

REFERENCES

- Ahmed Ali Abadi K (2003).** A comprehensive explanation of the development of rural communities in Iran. *Journal of Economics and Agricultural Development, Agricultural Sciences and Technology* **2**(1) 33-35 (in Persian).
- Biglarian D (2002).** Attitudes of presidents and vice presidents Agriculture Organization of the privatization strategy for the promotion of agriculture in Iran. *Journal of Agriculture and Crop Sciences* **5**(5) 56 – 59 (in Persian).
- Maghbolli AS (2005).** Role in promoting agriculture and rural development. *Agricultural Sciences and Technology* **19**(73) 1-17 (in Persian).
- Nazari R (2006).** Communication Systems Research-Extension and Farmer in Iran. *Journal of Engineering, Agriculture and Natural Resources* **33**(10) 12-19 (in Persian).
- Shahbazi A (2005).** Introduction to promote training and development practices in rural. *Extension and Farmer Journal of Agricultural* **8**(18) 102 – 108 (in Persian).