The Role of Agricultural Extension in Transition Countries

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Abstract

New transition countries in Central and Eastern Europe have been involved to varying degrees in a movement to democratic political systems and market economies. One of the important stages of this process is a transformation of the agricultural system, which brings agrarian reforms and restructuring to the economies of these countries. Perhaps agriculture has been the sector most impacted by the political and economic reforms.

Many changes are required for the existing agricultural organization to evolve to meet the demands of the market. This has caused rapid change in rural populations, community viability and in the social and commercial infrastructure. The private sector of the economy has adapted and grown rapidly in the areas that support the new structure for agriculture, while the state sector has stagnated.

In this transition, the role of Extension is becoming more recognized as important, especially for private farmers. Agricultural Extension represents an organization which can help people and communities to solve problems, increase agricultural productivity, create new products, protect animal and plant health, promote nutrition, strengthen children, youth and families, revitalize rural areas, and maximize the effectiveness of limited resources in cooperation with other countries.

Creation of extension systems is already underway in these transition economies. There are more than 195 Extension systems in the nations of the global community. Transition countries are searching for Extension services with a market base and trying to find their own way in development of Extension systems that are in harmony with their national traditions and cultures. Like the situation in other nations, the Extension services in these nations will have special features and approaches.
Purpose

The purpose of this paper is to describe an Extension model for transition countries and its role in a contemporary society, using Ukraine as an example. The process of establishing a market economy in transition countries has been conducted by:

- Transition to market incentives for resource allocation;
- Reformation of agrarian relations;
- Different forms of ownership: state, private, and collective;
- New agricultural enterprises: farmers, partnerships, agricultural cooperatives, individuals, etc.

The new Extension systems need to be based on a scientific approach and yet develop using the history and culture of the nations as environmental conditioning.

This paper addresses the following questions:

- How is Extension developed?
- What is the role of Extension in transition countries?
- What is the developing model of Extension in Ukraine?

Methods and Data Sources

Agricultural Extension must include a dynamic, flexible system for developing and implementing programs. A dynamic Extension system consists of numerous complementary and interactive components, each contributing to the success of the total system.

The components include: the organization’s mission; situation or content; target audiences; program objectives; program content; learning strategies and a systematic approach to the non-formal learning system, which includes evaluation and adjustment. Key supporting components in designing the programs and the system are experience, reinforcement, and integration. Other components vital to the total system include collaboration with learner groups and learner motivation.

The framework of dynamic modeling (1999) can be used to address many variant problems to evaluate strategic decisions in different situations and under risk and uncertainty. Extension systems in the developing world must emerge in a context that includes:

- Growing global populations;
- Urbanization;
- Increasing global demand for food production;
- Concerns about food safety and security.

Risk and uncertainty are part of this context. Every decision has consequences for the future, and that we can never be absolutely sure what will emerge.

Dynamic modeling can be employed for solving the multi-stage optimization process, which may involve both time and spatial dimensions. The Ukrainian school of dynamic modeling was called ”Sequential Analysis of Variants.” The optimal decision is found by using the “rule of the selection of the variants” by V. Mikhalevich (1977). The Ukrainian school of dynamic modeling was found on a new approach, which was not the “course of dimensionality” as reported by Bellman.

All of these dynamic modeling approaches are now applied more in terms of how to consider and adapt to change than in a formal sense. The application is complicated by changes that involve more than the nature of the economic and political systems in which they function. Ideally, in market economies, public interventions should be mobilized when
there are market failures. But with the growth of information technologies and learning technologies, the role of the public sector is changing. These changes are consistent with the growth of a more robust private services sector. Public or state Extension services must not crowd out the emerging private sector. Perhaps these changes along with pressures on state and public Extension services to become more efficient are responsible for the trend to “mixed” organizational models for Extension.

Data Sources
This paper is based on special evaluation research conducted in 2001 during:
• International Conference of Global Consortium of Higher Education and Research for Agriculture, San Francisco, California, USA, July 12-14, 2001;
• 15th European Seminar on Extension and Education, Wageningen University, the Netherlands, August 27-31, 2001.

Of the 130 assessment and evaluation forms distributed to the participants of the conference and the seminar, 58 (44.6%) were returned. The analyses presented in this paper are based on the information provided by these 58 respondents.

Results and Conclusions
History indicates that development of Extension in the world can be divided into three periods: 1867-1945; 1946-1989; and 1990-2002. During the first period, 1867-1945, the Extension service was established in the developed countries of Europe and North America. During the second period, after World War II (1946-1989), the Extension service was established in the many of the developing countries of Asia, Africa, South America. There were several reasons for the emergence of Extension in these nations, (Brenda Seevers, Donna Graham, Julia Gamon, Hikki Conklin, 1997):
• Establishment of new independent countries in the place of former colonies;
• Massive international assistance after World War II;
• Increased trade and attention to economic development.

During the third period, 1990 to 2002, Extension services have been established in new transition countries of Central and Eastern Europe. These countries were changing their political systems and adopting a market economic framework.

There are different models of the development of Extension which can be divided into four general models:
• State;
• Private;
• Public; and
• Mixed.
Each has its own way of developing depending on the country, year of establishment, local situation and source of funding.

The first movements in development of Extension services have governmental models as a basis–USA, Germany, the Netherlands, China, India, and others. Some of these have evolved from state to more private models-Germany, the Netherlands, and India where farmers can pay for their service themselves.

In the USA, Extension developed under a State, Federal, and local framework. Today it is still predominantly governmental and serves all aspects of rural society, including farms,
communities and consumers. Other countries, which established Extension services after World War II have their own models: Turkey, China, India, Philippines, Belgium, etc. The countries, many of which organized their Extension services over more recent years of the last century, generally have mix models, e.g., Australia, Uganda.

Most of the transition countries, which began to develop Extension services at the end of the 20th Century, started from mixed models, Hungary, Poland, and the Czech Republic, for example.

Figures 1 through 4 illustrate some of the differences between the Extension models of North America, Europe, Asia, and Africa. In Europe, the more common form or model for the Extension service is the mixed model, 32%.

Figure 1. Extension Models of Europe (countries)

The models of Extension models of North America are more state managed (Figure 2). The same is true for Asia (Figure 3). Africa is different. Here the public model is predominant (Figure 4).

Figure 2. Extension Models of North America (countries)
Figure 3. Extension Models of Asia (countries)

Figure 4. Extension Model of Africa (countries)

Figure 5 illustrates trends of Extension models that emerged from the analysis of the data derived from the survey. The trend is toward mixed models. This is consistent with the model of public goods and the developments in information technology.
Ukraine Extension began to develop its modern Extension system beginning at the end of the last century when the first international projects came to help farmers. Prior to this date, information and education had been delivered through the state and collective farm system through the employment of specialists, engineers, agronomists, veterinarians and others. The international projects came largely from Western Europe and North America, and as expected carried with them models used in their nations. The Extension model in Ukraine is developing after USA and European models and appears to be following the mix model (Figure 6).
At the center of this model is an Advisory Council. It operates at the government level through the Extension Center of Ukraine and includes representatives from all agricultural organizations: Ukraine Academy of Agricultural Sciences, the Ministry of Agrarian Policy of Ukraine, Agricultural Universities, Association of Farmers of Ukraine, and private organizations. It remains a top-down system and to this point is focused primarily on farmers. As well, it is as of yet, mingled with the agricultural committees that function at the oblast and regional levels. The role of the universities is emerging. Increasingly, universities and technical schools are involved in a system that had its origins on a very hierarchical system. The private aspects of Extension have emerged as the payment for services has become more important in funding Extension and as the private service sector has emerged in rural areas.

**Conclusions**

- Extension can develop by different models;
- Transition countries mostly have mixed models of Extension which are in varying degrees of development;
- Extension systems that are effective join researchers, educators and professional facilitators;
• Extension is engaging people with education and information through expanding program areas;
• Extension is more a part of teaching and research programs of higher education institutions;
• Extension is increasingly using advanced technology.

The role of agricultural extension in transition countries is flexible and must constantly adapt to the evolving economic and positive environment.
- Transitions countries face special challenges related to the speed of institutional change;
- The approaches from other nations can be applied for development of Extension;
- Extension systems in transition nations are building cooperation with agricultural universities, academies, and colleges.

References