

FINANCING OF AGRICULTURAL EXTENSION SERVICES IN THE WORLD

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Abstract

In modern conditions the role of agricultural extension services (AES), in addition to the transfer of innovation in agricultural production and farmers' education, is more diversified in accordance with the requirements of farmers, local development strategies and defined agricultural policy. Under conditions of limited funding by the state authorities, providing different services requested that AES becomes more complex and makes fertile ground for the transfer of part of the advisory activities to other actors, such as private companies and non-governmental organizations, which results in the change of traditional models of extension service organization. New organizational models and new approach to financing of extension services in agriculture are generated.

In general, there are two main sources of financing of extension services: *the state or the public*, which is implemented mostly from the agricultural budget or through a variety of projects funded by the relevant state institutions, and *private*, which exists particularly in the cases when part of the extension work is provided through private extension organizations, where payment for these services is directly or indirectly transferred to the final users – farmers. However, there are very complex models of financing of extension services in the world, which are most often a combination of these models.

In the paper will be given the analyses of the relationship between models of organizing and financing extension services, then the elements that influence the choice of funding model will be displayed, as well as connections between the objectives and the participation of certain actors in the financing of agricultural extension services. Flow of funds from source to end-users will be shown in public funding model, while in the private funding special attention will be given to the degree of coverage of user of extension services and various topics covered by the work of such organized extension services.

Key words: agricultural extension service, funding, sources, users.

Introduction

The Agricultural Extension Service (AES) has an eminent role in the promotion of agricultural production, especially in countries in transition, where individual farmers are not only exposed to the changing agricultural policy, but also to increased foreign competition. At the same time, in developed countries, AES is highly organized and completely focused on meeting the specific needs of the user. In the world, therefore, there are differently organized and financed agricultural extension services. The applied model of organisation of these services depends on the agrarian structure, the level of technological development of agricultural production, socio-economic characteristics of its users, and available funds. In the early stages of development, AES is usually fully organized and funded by the government, while, during the economic empowerment of farmers, the burden for financing AES is transmitted to users, or clients. The transformation of the organization and financing of AES is accompanied by numerous changes in the scope of farmers, the quality of services provided and the subject areas covered by this service.

This paper analyzes the characteristics of different models of financing of agricultural extension services, and the effects of their work. The paper consists of three parts. The first section presents the methods used in the work and data sources. In the second section of the paper are analyzed two main sources of funding AES: state (public) and private, as well as various intermediate forms in which these two sources overlap. In the third part, conclusions and recommendations for the improvement of agricultural extension service in Serbia are presented based on the exposed experiences of other countries.

Materials and Methods

The aim of this paper is to point out the various forms of financing agricultural extension services that exist around the world. Foreign literature is rich in theoretical studies of this topic, as well as images of certain forms of funding AES that exist in practice, while the domestic literature significantly deal with theoretical aspects of the organization and financing of this service. The primary method used in this paper is the analysis and systematization of the literature, while the comparison method is used in order to compare AES in Serbia and other countries. In addition to theoretical research methods, the paper shows empirical methods, especially when addressing the specificities of the organization and financing of AES in the Republic of Serbia.

The publications of international organizations that deal with a decades-long analysis of various aspects of agriculture are the main sources of gathered data, including agricultural extension service, such as the Food and Agriculture Organization of the United Nations followed by the Centre for Agricultural Extension and Rural Development in Switzerland. An important source of information was also publications and research papers from the national and foreign authors.

Results and Discussion

Financing of the agricultural extension services cannot be considered separately from the forms of its organization, which can be conditionally divided into two main categories: state-organized (public) and private agricultural services.

Publicly organized extension service is usually related to financing from the state budget and its activities are predominantly covered by public funding. Generally, at the beginning of each fiscal year, one part of the total budget is directed for funding the agricultural extension activities. From the perspective of farmers, the services provided by such organized agricultural extension services are completely free of charge – because these are financed by the state. However, even in the state-organized extension service the cost can be transferred, more or less, to other funding sources, which are in the end directed to its final users. In other words, the state uses different mechanisms to relieve financial burden of extension services and to transfer the cost of its financing to other actors (Jankovic, 2007: 62). In addition to agriculture budget, which is the main source of funding in most countries with public AES, Rivera and Cary (1997) suggest alternative sources, such as:

1. Special forms of taxation of certain products which is targeted to most of advisory activities, such as, for example, coffee in El Salvador;
2. Differentiation of farmers and involvement of economically successful producers; and
3. Funding based on agreements and contracts, where farmers enter into contracts with public AES, as is the case in New Zealand.

One of the most commonly used model, especially in the early stages of commercialization of AES, is differentiation of farmers based on economic strength and the ability to bear one part

of the cost of extension services. In that way, richer farmers are included in financing AES, which means that they pay for provided services.

Basically, common to all these forms of extension services is that it is public, organized under the auspices of public authorities, for the most part financed by the state, while a smaller part of the cost is transferred directly (through contracts or paid advisory services to specific category of users) or indirectly (by introducing special forms of tax on certain agricultural products) to agricultural producers. In transition countries, where extension services are offered predominantly through a publicly organized AES (as is the case in Serbia), it is estimated that about five percent of extension work is entrusted to the private sector (Katz, 2002: 22).

At the present stage of development of agriculture, regardless of the socio-economic and social factors, there is no service that is exclusively organized through public AES. Ševarlic *et al.* (1999) reported that in Serbia in the period after the adoption of the Law on Professional Agricultural Services (“RS Official Gazette”, No. 61/91), apart from consultants of the agricultural services and agricultural experts employed in cooperatives and agricultural companies, part of the advisory services were provided by the veterinary services professionals whose services have almost entirely been charged from farmers.

In the future stages of the commercialization of agricultural extension services, in addition to the fact that the financial burden is being passed on to farmers, other providers of extension service are introduced. Basically, we are talking about the private consulting companies, companies producing and selling agricultural production inputs (seed, fertilizers, etc.), but also the organizations of producers, such as cooperatives, agricultural chambers and lately non-governmental organizations. In such circumstances, when part of the advisory services are transferred to private extension organizations, they may endure part of the costs, which is particularly important in terms of reducing agricultural budget, or at least the part directed to financing of AES (Nikolic and Arsenijevic, 2012: 832). However, even in almost completely commercialized systems of agricultural extension services, some services are implemented through public service. Ševarlic *et al.* (1999: 152-153) point out that in situations where the provision of extension services is transferred to private companies, public AES does not lose its significance.

As an antipode to the previous model, the main source of financing of such organized AES is the revenues paid by users – farmers, but an alternative source of financing can also be found, and they mostly depend on the type of advisory services and the areas to which they apply. The various mechanisms by which the state can help in providing extension services through private consulting companies are:

1. Vouchers and coupons systems, when the state approves vouchers for farmers to engage advisors as is the case in Chile or farmers getting a loan coupons, which are used for paying advisors engaged like in Colombia (Nikolic and Arsenijevic, 2012: 828); and
2. Payment of extension services through organizations of producers, where farmers do not directly pay a fee for consulting services, but they pay membership fee in agriculture chambers and then they pay for the services of advisors, partially from the charged membership fees, and partially from the funds received from the state budget. Participation from the state budget can be significant – in France, for example, the government contributes to 49 percent of these costs.

In the relevant literature it is a widely accepted opinion that there is no best model for the organization and financing of agricultural extension services (Jankovic, 2007: 70; Ševarlic *et al.* 1999: 153), but that the final form that will exist in a country depends on its specific

characteristics and takes into account characteristics of both agricultural production and the achieved level of development of rural areas, and farmers, as well as prevailing users of AES. Different models of organization and financing of AES are not mutually exclusive, and it is possible that in a country at the same time co-exist two or more different forms of services, such as in Germany, for example. The choice of the best adapted form of the agriculture extension services depends on many factors. Katz (2002: 14) states that the elements that define the financing of AES are:

1. Clients or users of extension services;
2. The extension services provided;
3. The context and framework conditions; and
4. The extension organizations that provide service.

Clients of extension services are primarily individual farmers, and other entities engaged in agricultural production, such as large-scale commercial farms, farmers' organizations (associations, unions, and agriculture chambers). Identifying of users of extension services depends primarily on who will benefit if the given advice is used in practice. In fact, if the goal of extension service is improving the quality of agricultural products, the main beneficiaries are farmers themselves, but intermediate users are purchasers and processors of these products. If the goal of the extension services is to reduce the use of chemical inputs, then the beneficiaries of these services are consumers, while in the case of hiring extension service to control for example ragweed, the user can be identified as the local population.

Depending who is the final beneficiary, it can be concluded who will bear the cost of hiring agricultural extension providers. As the number of potential users of the service increases, the source of funding is closer to the public/state funds. When the primary users of extension services are agricultural producers, then they will provide the greatest part or entire funding for extension services.

The extension services provided, or the relevance of discussed topical area is directly related to clients of extension service. Improvement of agricultural production, creating business plans, or protection from disease in livestock breeding is aimed at users – farmers, and extension service aims to increase their income, so they will participate or completely finance such a service. If provided extension service aims at improving the conditions of agricultural production in the local community, in addition to private resources of the farmers that may be the immediate beneficiaries of such a service, part of the funds can be raised from the local community.

In the case when it comes to consulting work in the areas where private extension organizations do not have a financial motivation, or cannot make a profit on the implementation of these activities, funding sources are shifting from private to public. As the topic of extension work is more general and number of users higher (such as the environment protection, rural poverty reduction, sustainable agriculture, ecological effects of agricultural production, etc), the motivations of users for participating in the financing is significantly reduced, because the use of these services is not limited only to clients, but to the community. In this case, the financing of such extension activities will be largely out of the public budget, regardless of who performs these extension activities.

The context and framework of extension services depends on the agricultural structure, the status of agriculture in the national economy, legal and institutional environment, etc.

The providers of extension services are agricultural extension organisations. There are different categorisations of extension organizations (Nikolic and Arsenijevic, 2012; Jankovic, 2007; Ševarlic *et al.*, 1999), and according to Katz (2002: 17) they can be divided into four categories: (1) state (public) organizations (such as AES in Serbia or state universities engaged in providing extension services as in the USA), (2) private profit-oriented organizations (consulting firms) (3) private non-for-profit organizations (NGOs), and (4)

producers organisations (cooperatives, unions, associations, community organizations, etc.). Regardless of the form of organization, all of these services can be financed by public and private funding sources, as previously discussed.

There is a direct correlation between funding sources and clients/users, or the part of the population that will benefit from the implemented extension activities. Rivera and Cary (1997: 249) stated that, models of AES can be grouped into three categories: (1) public funding for part of the extension services that benefits the entire population, (2) payment of extension services for activities that will provide a direct increase of farmers income, and (3) mixed funding for services where the end-users are farmers and residents of local communities.

Regardless of the form through which extension service is implemented, flow of funds from the state authorities to farmers could be twofold: direct – from the source of funding, or the state institutions to extension organizations that then provide services to clients, and indirect – from source of funding to farmers, who then directed it to the extension organizations of their choice. The second model is commonly found in circumstances where great number of organizations is dealing with the extension services or when in addition to public there are private extension organizations. In the literature this model is often referred to as institutional pluralism and provides greater competition between providers of extension services, which often results in higher quality of services that farmers can get. Therefore, the decision to appoint the extension providers is up to the final user, as well as the flow of funds from the state budget to extension organizations.

There are very complex models of financing the AES in the world. In general, we can say that commercialized extension service suits the needs of farmers better, and that they can get higher quality of extension services. When farmers participate in the financing of extension services, their representatives have more influence on its development, leading to a further improvement of the quality of the AES. At the same time, the shift to commercialized extension means that a smaller number of farmers will use extension services, primarily those who are economically stable and able to pay. This results in a further polarization among farmers. It also reduces the dissemination of knowledge among farmers, because they are typically less willing to share the knowledge they have personally funded, than when they got their knowledge through public AES. All these are reasons why even in fully commercialized systems AES, state – public AES has important role. Only public service can guarantee coverage of all topics, even those where final beneficiaries are identified very broadly, which is especially important in the increasingly active role of AES in rural development. Also, public AES can provide greater coverage of farmers, including those who are not in economic position to use and pay private extension services.

The previous stated theoretical considerations are of particular importance for the planning of AES in Serbia. In fact, during 2009 and 2010 in Serbia was carried out a transformation of agricultural extension services from social enterprises to limited liability and joint stock companies, with a majority share of the state capital, and in 2010 a new Law on the performance of expert and extension services in the field of agriculture was adopted (“RS Official Gazette”, No. 30/10). In our country we still have mostly state-organized and financed AES.

Although the model of private financing of AES in Serbia is introduced in small steps, there are a number of users who need adequate services and who are in a position to self-finance them. According to Bogdanov (2007: 142-144), 24 percent of rural households in Serbia have a need for services that can be provided by the extension service (producers oriented on agricultural production are interested in information about the sources of credit, market, fertilization and protection of crops, while households that see their future outside of agriculture are interested in obtaining assistance in starting a new business). Unfortunately,

the model of agricultural extension services with selected farms applied in our country, which is the result of limited funding and modest human resources related to the number of individual farms, determined that according to the same survey 40 percent of farmers do not know that there agricultural extension service even exists.

Although this research, which included all rural households (agricultural, non-agricultural and mixed), was conducted before the reorganization of agricultural extension services in Serbia, this percentage is still worryingly high and indicates the need to focus more significant resources to finance agricultural extension services. A part of these funds could be provided with more allocations from the agricultural budget. According to the Regulation on the allocation of subsidies in agriculture and rural development (“RS Official Gazette”, No. 20/13), subsidies for agricultural extension service accounted for only 0.87 percent of the available funds. Allocations for AES for a long time have not been changed (in this year they are in absolute terms at the level of the average from the period 1997-2004 or about 2.3 million Euros), which is clearly not enough for a significant improvement or restructuring of this service. Increased participation of private organizations in the provision of extension services, which would primarily be focused on the larger farmers, would allow that extension workers employed in the public AES direct their activities to smaller farmers, which would at the national level increase the coverage of farms with extension work.

Conclusion

There are two main sources of financing agricultural extension services: the public or state and private that can co-exist. Between these two extremes there are many intermediate forms and models of financing AES. Which financing model of AES will be best adapted and accepted in one country, depends on the characteristics of final users, their coverage – which is directly related to the topic that is addressed through extension services, the context and the framework of extension services and finally the organisation model of extension organization. Experiences from other countries can be of great importance for Serbia, because the commercialization of agricultural extension services is yet to come.

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