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EDUCATION OF AGRICULTURAL PRODUCERS INTENDED TO IMPROVE FARM OPERATIONS AND MANAGEMENT

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**Paper prepared for presentation at the 113th EAAE Seminar
“THE ROLE OF KNOWLEDGE, INNOVATION AND HUMAN CAPITAL
IN MULTIFUNCTIONAL AGRICULTURE AND TERRITORIAL RURAL
DEVELOPMENT”, Belgrade, Republic of Serbia
December 9-11, 2009**

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Abstract

Having in mind that rural areas occupy the greatest part of Serbian territory, where agricultural production represents the basic source of income, development of this sector is of great importance not only for local community, but also for entire Serbian rural area. At the end of previous decade in developed European countries it was promoted a model of rural development which assumes multifunctional nature of European agriculture, as well as its development role in economy and entire society. In the first decade of this millennium Serbia has made decision to develop the same concept.

By possession of adequate training for utilization of scientific and research methods in identification of local community advantages and disadvantages, as well as for priorities' determination and strategic plans' creation, representatives of local communities will be able to contribute to better and faster development, as well as to a higher quality life in their own rural areas.

Education program designed for agricultural producers *aims to* improve knowledge of registered farm holders (and their family members) in field of business and management. *Specific objectives* of the training are to increase sales of goods and services in domestic and foreign market, to increase competitiveness in a particular market, to achieve higher profits, to create new jobs and improve living conditions in rural areas.

In this paper there are shown the results of the mini-projects that have been implemented by The Institute of Agricultural Economics - Belgrade in the 2006-2008 period. Those were special educational projects in agriculture and rural development, whereas extension activities were concentrated onto three topics: farm management, support of rural development and improvement of small farms. Implementation of the first and the third project took place on the territory of the South Banat County, while implementation of the second project was conducted on the territory of the Belgrade city communes.

By detailed analysis of needs to solve current problems of sustainable agriculture and rural development, there were identified *priorities* related to investments, strategic planning and tourism.

Given the complexity of the programs implementation, educational activities were aimed at a number of holders or members of their registered farms. The dynamics of implementation of projects included introduction and discussion with a number of farmers, and afterwards formation of small group of educational programs users, preparation and making of materials in written and electronic form, a series of theoretical lectures and in the end determination of the result of joint work.

Evaluation of projects was related to the determination of the level to which were achieved set objectives, defining the implementation of projects in accordance with the plan, as well as the impact of educational activities to promotion of knowledge concerning business and management. Evaluation of projects is done from 1 to 5, as the highest grade.

Key words: education, investments, rural development, tourism, local community

Introduction

Increase of investments in agriculture presents precondition for its technical and technological modernization. Finally, it is one of preconditions for stability of entire national economy. Without adequate volume and structure of investments (on local, regional or national level), it is not possible to provide increment of fixed and working assets, growth of employment, increase of labor and machinery productivity, production diversification etc.

In circumstances where agricultural activity is based on private owner structure, as well as opened and competitive market, investments should be realized in form which ensures maximal effectiveness of exploitation (as higher as possible achieved level of effects per unit of invested financial resources). Financial decisions making in agricultural practice (in all economic circumstances) should be based on strict quantitative and qualitative clauses. They will provide precise orientation of expenditures, i.e. investing in the most effective projects' variant. No matter who is an investor, he has to use adequate methods, techniques and models to evaluate economic effectiveness of investments in agriculture. In such a way the investor ensures that his financial resources are invested in appropriated way, and that they provide the best results not only for him but also for entire society.¹

Rural areas in Serbia are involved in transitional process that has been under way for several years. Changes in domestic agrarian policy in sense of orientation towards rural development and multifunctional agriculture resulted in involvement of state institutions, local authorities and inhabitants of rural areas in development process. Such approach to rural development is the best way to facilitate integration in international institutions, European Union, and to strengthen over – border cooperation in this field, as well.²

¹ Cicea, C., Subić, J., Cvijanović, D. (2008): *Beyond Agriculture and Rural Development: Investments, Efficiency, Econometrics*. Institute of Agricultural Economics, Belgrade.

² Vasiljević, Z., Subić, J. (2008): *Značaj bottom-up pristupa u planiranju i realizaciji lokalnih in regionalnih programa ruralnog i poljoprivrednog razvoja u Srbiji*. Predavanje po pozivu. Tematski zbornik Savetovanja *Agrarna i ruralna politika Srbije 2, Početna iskustva pridruživanja EU i predlog mera za 2009. godinu* (Agricultural and Rural Policy of Serbia 2, Initial Experiences of EU Accession and Proposal of Measures for 2009), Iriški venac, 9. oktobar 2008. DAES - Društvo agrarnih ekonomista Srbije, Beograd; str. 57-66.

Rural development, as a rule, does not have concrete bearer (for example an enterprise). Complexity of rural development is connected to interests of many enterprises and other subjects; to interests of local population and other inhabitants. Keeping that fact in mind, state should incentive and support rural development. State is the only one that could use its territorial agencies and departments to start, realize and manage development of concrete territories.

To begin realization of rural development in certain territory it is necessary to finish a lot of work in preliminary stage. Such work includes professional and experts' engagement which is needed to establish development strategy. The strategy would represent foundation for undertaking of complex development activities.

The most important element that is necessary to create development strategy is participation of all local community representatives in identification of existing possibilities and priorities which are important for local community.

Having in mind tendencies on tourist market (abandonment of mass tourism concept) recently is noticed increase of interest in so called "tourism of special needs". This is in accordance with fact that (on the end of last decade, as an act of political will) was promoted model of rural development (CAP). The model presents multifunctional nature of European agriculture and its development role in economy and entire society. Agriculture, as primary economy branch, has long term consequences for complementary cooperation with all economy sectors, so does with tourism.³

Various tourist modes (such as rural tourism, hunting tourism, fishing tourism, sightseeing tourism, manifestation tourism) are some of activities which are accessible to rural areas inhabitants. However, tourism development does not have to be accidental or result of local inhabitants' gumption. It has to be subject of serious analysis and planning on all levels (local level, municipality level), in tourist organizations as well as in various enterprises which may have economic interest in tourism development. This is why it is necessary to use systemic approach in such activities. Education is a start point which is necessary and needed to build future development.

Material and method

Education program for the holders of registered farms and their family members was initiated in order to raise their business skills. The primary objective of the program is to raise the competitiveness of farms (in order to improve their business and market efficiency), and promote the provision of business services. The

³ Vuković, P., Subić, J., Cicea, C. (2007): *Marketing Performing a Function in Tourist Development of Novi Sad*. Petroleum - Gas University of Ploiesti, BULLETIN, Economic Sciences Series, Vol. LIX, No. 1/2007, pp. 1-6.

secondary objective of the program is to develop tourism in rural areas as well as to include many farms in tourism.

Bearing in mind complexity and requirements connected to implementation of accepted program, within mini-projects that have been implemented by The Institute of Agricultural Economics-Belgrade in the 2006-2008 periods, educational activity was directed only towards certain number of competent bearers (or family members of their registered farms). Hence, depending on size of settlement, educational program included no more than 20 attendants. Therefore, dynamics of project realization occurred in following way:

- First of all had been performed introduction and conversation with number of agricultural producers, and after that were formed small groups made up of chosen members;
- Followed preparation and making of working material in printed and electronic form;
- After that were performed series of theoretic lectures, as well as unavoidable workshops;
- During lectures was applied certain way of testing, in order to strengthen attendants' knowledge;
- On the end were summarized results of joint work, clarified all obscurities and participants agreed on future cooperation in project realization.

Activities concerning project named *“Planning and appraisal of economic efficiency of investments on family farms”*, had following dynamics of realization:

- Preparing activities (detour of the area; conversation to agricultural producers; choosing and forming of working groups; production, printing and multiplication of brochures as well as materials in electronic form);
- Educational activities of theoretical character (with topics: idea of investments; structure and classification of investments; characteristic of investments in agriculture);
- Educational activities of theoretical and practical character (with topics: planning of investments; basics of investment calculation; sources for financing of investments; idea of capital costs);
- Educational activities of theoretical and practical character (with topics: concept of economical efficiency; criteria for evaluation and analysis of economic efficiency of investments on micro economic level; time value of money and its importance for determination of economic efficiency of investments in agriculture etc.).

Activities regarding project named *“Participation work on identification of possibilities and priorities in rural development of local community”* had following dynamics of realization:

- Preparing activities (detour of the area; conversation to agricultural producers; choosing and forming of working groups; production, printing and multiplication of brochures as well as materials in electronic form);
- Educational activities of theoretical character (with topics: idea of rural development; idea of strategic planning; description of importance of strategic planning - theories and concepts; important factors/participants in rural development; usage of appropriate tools to define and analyze existing situation; SWOT analysis; methods for determination of priorities);
- Educational activities of theoretical and practical character (with topics: formation of data base, formation of development strategy; methods for preparations of strategic plans; implementation, supervision and promotion of strategic plans in rural development).

Activities related to project named “*Tourism as a chance for development of rural areas*” had following dynamics of realization:

- Preparing activities (detour of the area; conversation to agricultural producers; choosing and forming of working groups; production, printing and multiplication of brochures as well as materials in electronic form);
- Educational activities of theoretical character (with topics: idea of tourism; characteristic of tourism as economical activity; complementarities of tourism and agriculture);
- Educational activities of theoretical and practical character (with topics: social and economical importance of tourism; organization of tourism in rural areas; marketing concept and its application in tourism; conditions and possibilities for development of tourism in rural areas; sustainable tourism development of rural areas; types of tourism; tourism of specific interests – chance for rural areas economic development).

Realization of *the first project* have taken place on the territory of Province of Vojvodina, in South Banat County (on the area of four agricultural municipalities: Pančevo, Kovačica, Opovo and Alibunar), realization of *the second project* have taken place on the territory of Central Serbia, in municipalities of the city of Belgrade (on the area of six agricultural municipalities: Palilula, Zemun, Surčin, Grocka, Obrenovac and Čukarica), while realization of *the third project* have taken place on the territory of Province of Vojvodina, in South Banat County (on the area of three agricultural municipalities: Pančevo, Kovačica and Alibunar).

Two-phase procedure was used to evaluate the project, where the first was done evaluation of individual project activities (preparatory and educational), and then was determined collective grade of the project (from 1 to 5). Accordingly, there were established following criteria: level of achievement of set objectives, level of

project implementation in accordance with the plan and level of advancement of knowledge in the field of business and management.

Results and discussion

On the basis of adopted theoretical knowledge and practical work (through workshops) regarding certain computational operations which are necessary for *planning and economic evaluation of investments at family farms*, direct producers have obtained certain skills:

- to understand influence of usage of certain investment evaluation techniques and methods to investment decisions;
- to evaluate effectiveness of investment which is planned;
- to carry out cash flow analysis and to analyze investment projects' financing conditions;
- to avoid consequences of inefficient investing;
- to minimize risk that is associated with realization of business idea etc.

On the other hand, it is indicated an importance of economic efficiency of investments in agriculture. It is also determined necessity of education of agricultural producers (primarily bearers of developmentally orientated farms). They have to think out, prepare and realize business idea, which means to carry out planned investment activity that will enable their economic growth, financial stability and social safety.

Education within the *first educational project* was carried out in following intervals⁴:

- from May, 15th 2006 to June, 15th 2006;
- from June, 20th 2006 to July, 20th 2006;
- from August, 14th 2006 to September, 14th 2006;
- from October, 23rd 2006 to November, 23rd 2006.

In all cases there were engaged three lecturers, regardless character of educational activity (theoretical or practical).

Based on the established evaluation criteria, following evaluation of project activities has been carried out: preparatory activities (grade 5), educational activities with theoretical character (grade 5), and educational activities with theoretical and practical character (grade 5). In this context, collective grade of the project has been determined (5).

On the basis of earned theoretical foundation and practical work in overwhelming of certain analytical knowledge which is necessary for *planning and evaluation of*

⁴ Time intervals were determined depending on engagement of project participants in everyday work on their farms (i.e. depending on intensity of works in agriculture).

undertaken actions for development of concrete rural area, representatives of local authorities have acquired following possibilities:

- to see how application of some methods influence decision making;
- to use certain models for priority determination;
- to take part in determination of development plans for their region;
- to monitor future development and improvement of development processes in appropriate way etc.

Besides, there was indicated importance that has local community representatives in identification of possibilities and priorities which are of the greatest importance for establishment of adequate data base. Data base which is formed in such a way should be used as basic for establishment of adequate strategy of concrete region development. Such regional strategy should be in accordance with national development strategy as much as possible. Cooperation between local community (on one side) and scientific and research institutions (on the other side) in recognition of crucial indicators of regional development is of great importance.

Education within the *second educational project* was carried out in following periods:

- from October, 1st 2007 to October, 31st 2007;
- from November, 1st 2007 to April, 30th 2008;
- from August, 1st 2008 to September, 30th 2008.

There were always engaged three lecturers, no matter of character of educational activity (theoretical or practical work).

Based on established evaluation criteria, evaluation of conducted project activities was the following: preparatory activities (grade 5), educational activities with theoretical character (grade 4), and educational activities with theoretical and practical character (grade 4). Accordingly, collective grade of the project has been determined (4).

On the basis of theoretical lectures and practical work (regarding knowledge on tourism) agricultural producers which participated in education project have got basic knowledge needed for planning, organization, coordination and leading of all activities on the level of households and villages, as well as mini tourist agencies. In accordance with above mentioned, appear following possibilities:

- to grasp influence of tourism and its implementation to social and economic development of rural areas;
- to evaluate effectiveness and efficiency of tourism in realization of established goals and various interests;
- to grasp chances for development of own local community on the basis of available resources;
- to avoid consequences of omission of natural and social development potentials;
- to decrease risk of income realization etc.

Additionally, there was indicated importance of tourism for development of local communities and need for agricultural producers' education (primarily education of developmentally oriented farm bearers) regarding rural tourism activities. In rural areas tourism might present additional source of income for agricultural producers. Afterwards, in following development phases, for some households (which have mixed income sources) tourism could become bearer of development. There are expectations that tourism will enable economic growth, financial and social safety.

Education within the *third educational project* was carried out in following intervals:

- from October, 1st to October, 31st 2007;
- from November, 1st 2007 to May, 1st 2008;
- from August, 1st 2008 to September, 30th 2008.

Every time there were engaged four lecturers, and their engagement did not depend on type of educational activity (theoretical or practical character of work).

Project activities were evaluated on the basis of established evaluation criteria, in following way: preparatory activities (grade 5), educational activities with theoretical character (grade 4), and educational activities with theoretical and practical character (grade 4). In this context, collective grade of the project has been determined (4).

Conclusion

Proposed "Program of direct education of agricultural producers and bearers of rural development" started from basic assumptions and goals of strategic planning process. The program is founded on detail comprehension of local resources (material and non material) as well as local needs and potentials. There were deliberated basic theoretical elements, and complexity of economic, social, ecological and institutional components. This is start point for evaluation of existing social capital, promotion of desirable and elimination (or reduction) of undesirable processes and tendencies. The goal is to establish partnership between local participants. They have to determine, coordinate, optimize and carry out activities which provide long term increase of total life quality on local level.

Key elements that are necessary to create appropriate development strategy are participation of chosen local community representatives in identification of existing development possibilities, and determination of priorities which are important for local community.

Direct educational program enables local community representatives to qualify, and to improve their life quality in rural areas. Rural development of certain region significantly stimulates rural development in other regions (i.e. initiates rural development on national level) as well as in entire society. Implementation of special educational program in agriculture has following basic reasons:

- creation of vision concerning future goals of entire society;
- creation of overall picture regarding future changes in economy, environment and people;
- assurance of benefits for all society members;
- selection and consensus on basic common goals;
- involvement of number of local citizens and organizations in process of development planning and implementation;
- determination of resources which are needed for realization of changes;
- provision of support from state, private sector and non profit partners.

Territory, as a system, is under permanent evolution. The evolution is caused by endogen factors, development process, changeable and hardly predicted environmental factors. Thus, it is necessary to predict certain intervention during future socio – economic development of local rural communities. These interventions should be done to reroute programs, projects and other activities which are predicted in plans. Education of agricultural producers and bearers of rural development in order to enable them to identify development possibilities and priorities on local level is continual process.

Comparative analysis of evaluation of project activities, as well as the projects themselves as a whole, leads to the final conclusion that the education program on investments, entitled "“*Planning and appraisal of economic efficiency of investments on family farms*““ has the most successful realization, and thus the highest collective grade (5).

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