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Some aspects of agricultural and rural development in Montenegro: Overview

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ABSTRACT

Depopulation, deruralization and deagrarization have greatly contributed to the reduction of economic resources of the agricultural areas Montenegro, which has resulted in significant impact on rural areas. It is particularly important in less developed rural area of that changes have an important role in agricultural and rural development, since the possibilities for development are not used in the right way. Family agricultural holdings and business entities in ,, 2010 have 221.297.6 ha of total utilized land. There is a rather low number of holdings whose size varies between 100 ha or more, only 425 of them or 0.87 % in comparison to the total available land. At family agricultural holdings, 23.198 working persons are 65 or older, which comprises 23.5 % of the total labor force, while the share of people under 24 years is declining, comprising 6.83 % rural areas in Montenegro “have significant development potentials owing to its geographical, climatic, and natural features. This is a necessary but not a sufficient condition. Integral development of rural areas Montenegro should be based on the following elements: multifunctional agriculture, diversification of economic activities in rural environment, rural and eco tourism, organic food production, small and medium - sized enterprises, and cooperation between small and medium producers. Conclusion the text confirms the hypothesis and suggests a need of many changes in the structure and organization of the agricultural and rural sector in Montenegro, as well as the necessity of establishing the legal, institutional and budgetary framework.

Keywords: Montenegro, agricultural development, rural development

1. INTRODUCTION

By the year 2025, 83 per cent of the expected global population of 8.5 billion will be living in developing countries. Yet the capacity of available resources and technologies to satisfy the demands of this growing population for food and other agricultural commodities remains uncertain. Agriculture has to meet this challenge, mainly by increasing production on land already in use and by avoiding further encroachment on land that is only marginally suitable for cultivation. Major adjustments are needed in agricultural, environmental and macroeconomic policy, at both national and international levels, in developed as well as developing countries, to create the conditions for sustainable agriculture and rural development (SARD). The major objective of SARD is to increase food production in a sustainable way and enhance food security [1]. This will involve education initiatives, utilization of economic incentives and the development of appropriate and new technologies, thus ensuring stable supplies of nutritionally adequate food, access to those supplies by vulnerable groups, and production for markets; employment and income generation to alleviate poverty; and natural resource management and environmental protection.

The priority must be on maintaining and improving the capacity of the higher potential agricultural lands to support an expanding population. However, conserving and rehabilitating the natural resources on lower potential lands in order to maintain sustainable man/land ratios is also necessary. The main tools of SARD are policy and agrarian reform, participation, income diversification, land conservation and improved management of inputs. The success of SARD will depend largely on the support and participation of rural people, national Governments, the private sector and international cooperation, including technical and scientific cooperation [1].

According to Fleury et al [2] we face 2 major difficulties. On the one hand, the standard approaches based on a set of measures applied at individual farm level showed some limits in the reorientation of agriculture. Fleury et al [2] citing on research Heinz [3], Walford [4], Trouvé [5] and Wiesmann et al [6] indicates that research has revealed that despite the process of reforming the Common Agricultural Policy (CAP) and farmers' commitment in agro - environmental schemes, farmers often continue to intensify and specialize their farms. On the other hand, there is an increasing awareness of the relevance of approaches enhancing mutual learning and cooperation. Thus the concept of local projects involving the principle of participation is often seen as a solution to handle local diversities and to reinforce solidarities between actors working towards sustainable development. But such approaches entail the difficulty of combining agricultural and rural development issues. Indeed, the limited integration of agriculture and farmers has often been observed in current assessments of rural development projects. This could be related to the sectoral orientation of farmers and agricultural organizations.

Our research records based on similar studies Stanković [7] suggests that the main objectives of agricultural and rural development of Montenegro in preparation for EU membership are: increasing competitiveness in agricultural production, the increase in non-agrarian income in rural areas, emphasizes the importance of rural development, ensuring compatibility agrarian institutions, statistical and other databases. Montenegro has very favorable natural and climatic conditions for the development of agricultural production. However, the agricultural sector is characterized by a dual structure: a corporate farms and family farms. Corporate farms are operating with a lack of investment funds. The largest number of family farms located in the properties of less than ten hectares. There is a pronounced

trend of aging farming population and insufficient use of modern techniques and technologies in agricultural production.

How and Stanković [7] points out harmonization of national measures of agrarian policy of Montenegro with the measures in the EU is very important. The main directions of work of the competent authorities to encourage the development of agriculture should have three main directions: legislative, institutional and budget. Legislative direction refers to the harmonization of domestic legislation with EU legislation. Institutional direction implies the existence of effective institutions that transparently carry out their functions, all in order to develop agriculture. The budgetary aspect of the work is often the most visible to the public. The level, form and manner of subsidies must follow the European path. Therefore, it is necessary to harmonize the legislation of Montenegro with EU legislation, reform of existing institutions and budgetary planning.

2. MATERIALS AND METHODS

The presented material was mainly based on the study of many Montenegrin and international specialty papers (see references at the end of the paper), from the observation of the current situation in the field, on the occasion of documentation and information visits, as well as in consultation with numerous articles and studies published on Internet [like and 8]. A number of official websites of institutions and central and local management bodies in the investigated area were also consulted, namely: Ministry of Agriculture and Rural Development - Government of Montenegro [9], the Statistical Office of Montenegro - MONSTAT [10,11] and others UNEP [1], Millennium Ecosystem Assessment [12].

3. ANALYSIS AND DISCUSSION

The Figure 1 sets out the basic arguments, illustrating the four predominant models of rural development. The immediate post - war model centered on of the agricultural sector. Increasing food production was a first priority and other objectives, such as enhancing rural employment and services, were seen as following directly from the production support given to the agricultural sector. But through time the approach has changed, shifting to multispectral, territorial and local approaches. The multispectral policy recognizes the limits to agricultural production support and sees agriculture as one of several economic sectors through which the development objectives can be attained [13]. The focus may still be on farming, but there is encouragement for agricultural diversification.

The territorial approach recognizes the wider interactions within the rural economy and the importance of social and environmental as well as economic issues. Finally, the differentiation between rural areas and the variation in individual circumstances within areas promotes a search for actions that recognize the specificity of solutions at most local levels. These changes have reflected both forces fundamentally associated with national economic change and other factors more governed by local circumstances. And they have major implications for the methodologies that are relevant for the analysis of rural problems and the evaluation of policies [13].

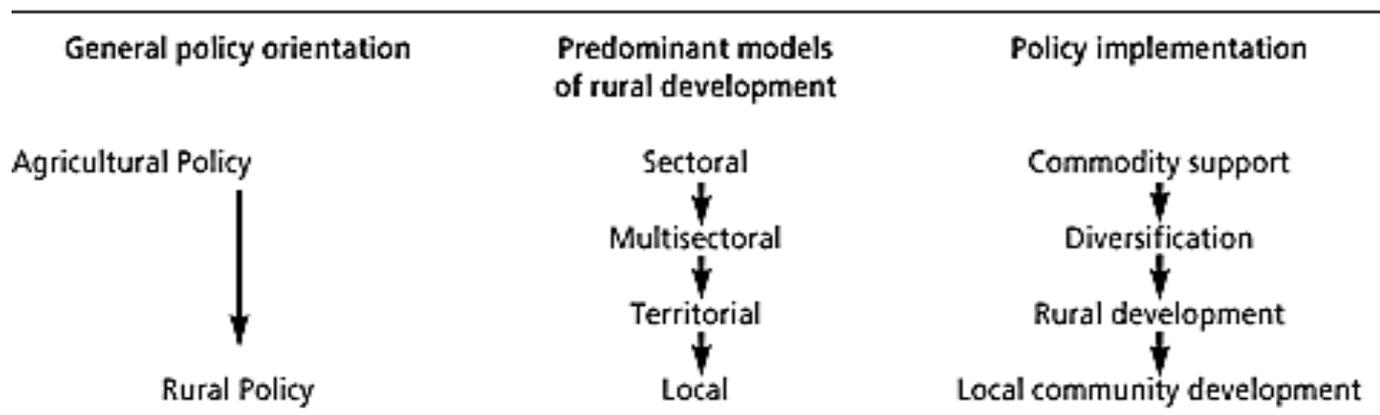


Figure 1. The evolution of rural development policies [13].

Table 1. The Number of Rural Populations in Montenegro.

| Number of Inhabitants | | Rural Population | |
|-----------------------|---------|------------------|------|
| | | Number | % |
| Montenegro | 620.029 | 228.009 | 36.8 |

Source [10].

Raonić [14] emphasizes according to Jelić [15] that key characteristics of the changes are depopulation, deruralization and deagrarization. These changes have greatly contributed to the reduction of economic resources of the rural areas, which has resulted in significant impact on rural areas. Agriculture is still the oldest economic activity and the most important one for the survival of the rural population. It is particularly important in less developed rural area of Montenegro that changes have an important role in agricultural and rural development, since the possibilities for development are not used in the right way [see 16-20].

Jelić et al [21] citing on research Šarović [22] indicates that the migratory movements in the Montenegro were long lasting and still on - going. The migration of the population is not specific to the Montenegrin society. All developed countries have gone through periods of mass exodus, especially youth, from villages and agriculture to cities and nonagricultural activities. „The most intense departure of population abroad occurred in the second half of the twentieth century, at a The second type of migration is the relocation of the rural population to the cities, and emigration from the Northern region and the settlement of the central and southern regions of Montenegro.

This movement expressed through the abandonment of the village reflects the changes in the economic and social structure of the population. The abandonment of the village is reflected on the change of non-agricultural population to the agricultural population, and at the same time the number of agricultural population and the population living in rural areas is decreasing“ [21]. On this phenomenon indicating data of the Statistical Office of Montenegro [10] that in relation to the total population of Montenegro (620.029) in 2011, 228.009, or 36.8% is rural population [see 23-26].

The LEADER approach is based on guiding principles aimed at supporting the EU's rural development policy by “improving the quality of life in rural areas and encouraging diversification of economic activity” (Council Regulation (EC) No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD)) [27]. Based on local resources, LEADER represents according to Gobattoni et al [27] citing on research [see 28-32] indicates that an opportunity of enhancing regional identity, it is related to concepts such as the sense of belonging to a community and participation in decision making. In this context, a successful combination of innovation, organization and territory appears crucial. Gobattoni et al [27] research further states Markusen and Venables [33] and Esparcia [34] & Wellbrock et al [35] and conclude that underline; it is not enough to bring stakeholders together in a given geographical space. The creation and development of networks for their interaction become essential: networks of local actors are strategic in allocating resources (endogenous and exude - nous) for the development and implementation of innovation projects in rural areas. Thus, the strength of the partnership between local actors influences the impact of support actions on rural development.

Family agricultural holdings and business entities enumerated according to Joksimović at al [36] in „, 2010 have 221.297.6 ha of total utilized land, which makes 71.6 % of the total available land. An average agricultural holding has 4.6 ha of utilized agricultural land. Structure of utilized agricultural land is the following: perennial meadows and pastures make 94.98 % of total utilized agricultural area and other categories of land as kitchen gardens, arable land, vineyards, orchards and nurseries make together somewhat above 5 %. Regarding the size of utilized agricultural land, 15.418 family agricultural holdings belong to the interval between 0.1- 0.5 ha or 31.6 %. There is a rather low number of holdings whose size varies between 100 ha or more, only 425 of them or 0.87 % in comparison to the total available land. The previous data indicate to the fact that small land property still prevail in Montenegro. One of main characteristics of family agricultural holdings is a high share of older persons working at holdings and lower number of younger people“.

Joksimović at al [36] continue to emphasize using data of the Statistical Office of Montenegro - Monstat [11] that at family agricultural holdings, 23.198 working persons are 65 or older, which comprises 23.5 % of the total labor force, while the share of people under 24 years is declining, comprising 6.83 %. Moreover, the data indicate the fact that almost 44% of the total number are persons older than 55. From the aspect of education, the labor force on family agricultural holdings comprises of 33.180 persons with 4 years of secondary education, i.e. 33.74 %, whereof 22.157 are males, or 66.78 % and 11.023 are females or 33.22 %. The number of persons with post - secondary or higher agricultural education is 1.446 which makes 1.47 % of the total labor force on family agricultural holdings. The number of males with post - secondary or higher agricultural education is 1.054 or 72.89 % and of females is 392 or 27.11 %. The share of persons with other post-secondary or high education in the total labor force is 7.62%, whereof 74.37 % are males and 25.63 % are females.

Table 2. SWOT Analysis of the Current Situation in the Sector of Agriculture and Rural Areas

| (Strengths) | (Weaknesses) |
|--|---|
| <p>High quality, preservation and fertility of the soil, Favorable climate for many types of products, Tradition in agricultural production practices, Biodiversity, presence of autochthonous species and varieties in agriculture, Good conditions for organic production, Sufficient work force that seeks additional opportunities for employment, Obvious changes in the institutional framework during the recent period, Obvious positive changes in production processes (adoption of new technology, introduction of standards ...)</p> | <p>Large part of production non - competitive in price Poor mechanization Low level of technology and specialization applied in production Small and fragmented holdings Low levels of production per household unit Relatively high input prices that influence the final price of products Low levels of market sales Lack of organization and cooperation in the production chain Insufficient quality assurance standards (hygiene and environmental) Inefficiency and non-competitiveness of processing industry (low levels of production, obsolete technology, lack of investment, market inefficiency) Unfavorable age and social structure in rural areas, Poor infrastructure in major parts of rural areas Low budget support Insufficiently developed IT systems, statistics and analyses in agriculture Weak promotion and marketing Lack of storage capacity Poor connections with the Tourism Sector Low levels of education and lack of knowledge in farmers Low levels of application of good agricultural and environmental practice Seasonal production</p> |
| (Opportunities) | (Threats) |
| <p>Strengthening agriculture through tourism, additional food demand Availability of state and EU support, particularly for rural development</p> | <p>Opening of the market will increase competitiveness which may endanger major parts of commercial production</p> |

| | |
|--|---|
| <p>Increasing markets for organic production Strengthening local production and markets Increase of exports of competitive products (wine, lamb, vegetables) Positive international market tendencies, including Middle East market Efficiency of additional budget support Faster technological development, strengthening of professional skills and institutions supporting agricultural development Growing demand for high-quality products Involving young work force in agricultural activity, Development of cooperation</p> | <p>Due to low levels of production and quality, as well as preferences for foreign goods, the penetration of large trade systems will further endanger the economic position of certain sectors Concentrated development of other economic branches in certain parts of the country, without agricultural development, may further affect depopulation and the under-utilization of natural resources Huge dependence on imports, Lack of public awareness regarding the benefits of local products Difficulties in accessing finance for farmers (loans)</p> |
|--|---|

Source [9].

In general, agriculture in Montenegro benefits from a favorable climate for the production of many species and varieties of crops. Montenegro has a well - preserved environment, including high quality, well - preserved and fertile soil, and a low level of pollution due to a low use of mineral fertilizers and pesticides. Climate, rich biodiversity, nature and a clear environment are excellent preconditions for the development of organic farming. Also, available land resources are an additional advantage, together with the traditional production of typical products and the preservation of autochthonous species, types and breeds in several sectors.

The growing local market, which also is experiencing an increasing demand from the Tourism Sector, provides support for further progress in the sector. Over recent years, processing capacities have been developed in a few sectors, and these have paved the way forward for the introduction of value added products onto the market [9].

Agriculture has been completely neglected for decades in Montenegro. The share of agriculture in creation of GDP decreased from 40 % (after the World War II) to 7.7 % in year 2010. As a result of agriculture neglect there is a range of negative effects: slower GDP growth, migration from rural to urban areas of the country, worsening of current account deficit, rising unemployment, the impoverishment of the countryside etc. On the other hand, many analysis show that in the following decades we can expect growth in demand for agricultural products and also increase of prices [37]. Accounting analysis showed that the key problem of agriculture is low degree in liquidity. T

he key problems of Montenegrin agriculture are small farms, outflow of agricultural labor force to the cities, the low level of mechanization use and agro-technical measures, and low incomes. Therefore, indicate that key recommendations relate to increased credit support to agriculture, increasing the amount of subvention, the granting of tax incentives, raising the level of technical equipment and application of agro-technical measures, and also improvement of general living conditions in countryside [37].

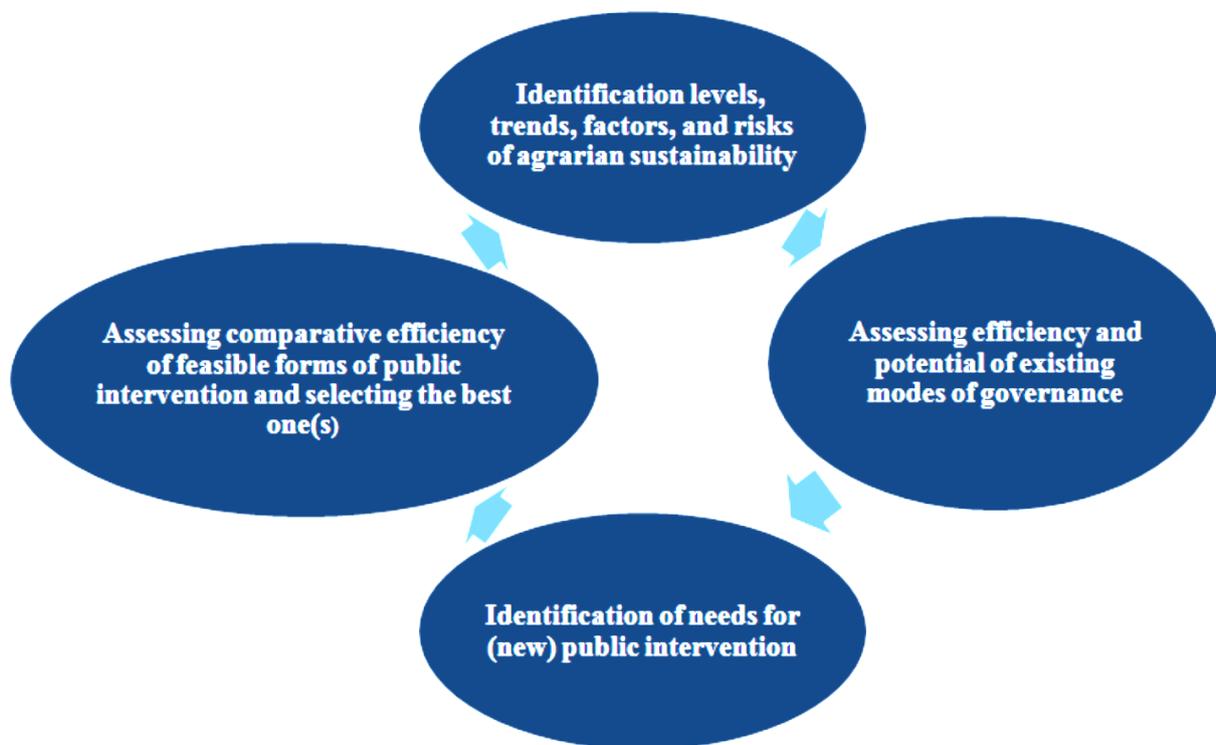


Figure 2. Stages for improvement of governance of agrarian sustainability [38].

Improvement of the system of governance of agrarian sustainability is to include following stages (Figure 2): First, trends, factors and risks associated with agrarian sustainability are to be identified, and levels of social, economic and ecological sustainability in agriculture assessed. Second, it is to be assessed the efficiency and potential of existing and other feasible modes and mechanisms of governance of agrarian sustainability, for overcoming existing, emerging and likely social, economic, and ecological problems and risks associated with agriculture.

Third, deficiencies (“failures”) in dominating market, private, and public modes is to be determined, and needs for new public intervention in governance of agrarian sustainability identified. Finally, alternative modes for new public intervention able to correct (market, private and public) failures are to be identified, their comparative efficiency and complementarities assessed, and the most efficient one (s) selected. Only practically (technically, agronomical, economically, politically, etc.) possible modes of new public intervention in governance for the specific socio - economic, organizational and natural environment at current stage of development are to be compared [38].

The Community's according to Chirstecu [8] current policy primarily has in view the funding and promotion of agricultural and agro - tourism activities, with the following priority: increase and intensify efforts to vitalize the Common Agricultural Policy, in order to match the (agricultural and non - agricultural) production of rural area with the existing demand, through the modernization of agricultural holdings, establishment of agro-tourism farms and attracting the young people into this new, attractive and profitable action; stimulate the non-agricultural activities of the rural economy, creating jobs in this area, in line with the environment protection

and rural and agro - tourism development projects, through the construction of new accommodation facilities, tourism and agro-tourism centers, organization of services, continuous staff training; improve infrastructure, namely: communication ways, water supply, electric power distribution, development of transport means, on which all the activities for rural economy remigration depend; funding the school and training programs, benefitting the people who develop handicraft activities in small and medium-sized enterprises.

These programs aim at creating jobs, based on projects designed to enhance the potential and vocation of each rural area and locality separately. Such a measure may help to reduce migration and population decline in rural areas.

The idea of agricultural sustainability, though, does not mean ruling out any technologies or practices on ideological grounds. If a technology works to improve productivity for farmers and does not cause undue harm to the environment, then it is likely to have some sustainability benefits [39]. Agricultural systems by Pretty [39] citing on research Dobbs and Pretty [40] and MEA [12] indicates that emphasizing these principles also tend to be multifunctional within landscapes and economies.

They jointly produce food and other goods for farmers and markets, but also contribute to a range of valued public goods, such as clean water, wildlife and habitats, carbon sequestration, flood protection, groundwater recharge, landscape amenity value and leisure/tourism. In this way, sustainability can be seen as both relative and case dependent and implies a balance between a range of agricultural and environmental goods and services.

As a more sustainable agriculture according to Pretty [39] seeks to make the best use of nature's goods and services, technologies and practices must be locally adapted and fitted to place. These are most likely to emerge from new configurations of social capital, comprising relations of trust embodied in new social organizations, new horizontal and vertical partnerships between institutions, and human capital comprising leadership, ingenuity, management skills and capacity to innovate. Agricultural systems uncertainty by Pretty [39] citing on research Chambers et al [41], Uphoff [42], Bunch and Lopez [43], Olsson and Folke [44], Pretty and Ward [45] indicates that with high levels of social and human assets are more able to innovate in the face of uncertainty.

This suggests that there likely to be many pathways towards agricultural sustainability, and further implies that no single configuration of technologies, inputs and ecological management is more likely to be widely applicable than the other. Agricultural sustainability implies the need to fit these factors to the specific circumstances of different agricultural systems.

Zullich et al [46] investigates the impact of policies supporting the realization of two differing agricultural production systems. It distinguishes between a LEI + small - scale farming system with low capital and high labor intensity, and an HEI + large - scale system with high capital and low labor intensity (Figure 3).

In the HEI + large-scale scenario government support is mainly directed towards subsidizing the intensive use of high external input and large-scale farming, while in the LEI + small - scale scenario the government mainly supports a transition towards high agro - ecological knowledge intensity, less intensive use of external input and small - scale farming. See Zullich et al [46] further tests the vulnerability of the two production systems to two types of external shocks, a price shock and a discontinuity of current policies.

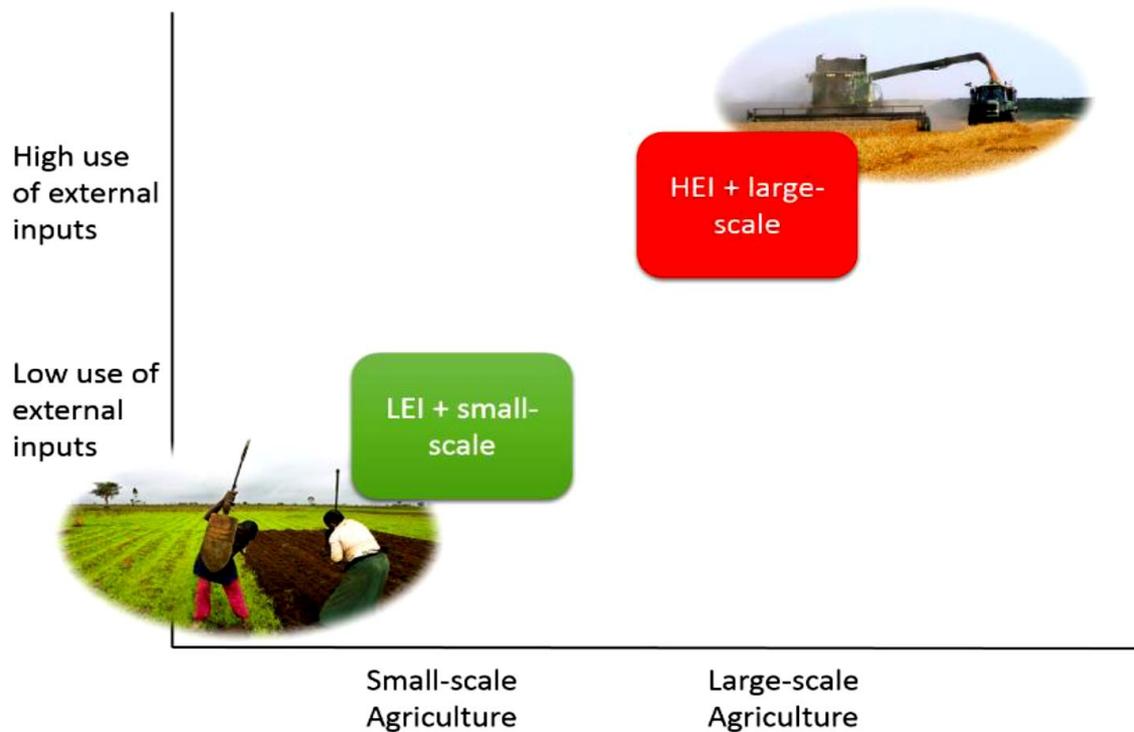


Figure 3. Two major agricultural production systems [46].

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4. CONCLUSIONS

Depending on the time and the country, different development strategies may be developed. Nowadays, at the time of information and communication and with the tertiary sector dominating the economy, as Antevski et al [47] and we will at this “point is noted that whether agriculture can be the engine of growth? Should rural areas base their future development on agriculture? It is unwise to underestimate agriculture as it is older than all the existing states and nations. Nor is it smart to lag behind modern technologies and industries. Agriculture is no longer what it once was, and that is a fact, therefore the basis for a variety of economic activities is much wider. Much of the knowledge and experience of others are

available free of charge”. With this in mind, we can contend that rural areas in Montenegro “have significant development potentials owing to its geographical, climatic, and natural features. This is a necessary but not a sufficient condition. Potentials should be tapped into. An integral development of rural areas should be based on the following elements: multifunctional agriculture, diversification of economic activities in rural environment, rural and eco tourism, organic food production, small and medium-sized enterprises, and cooperation between small and medium producers. Such a development will lead to improved demographic, social and income convergence” [47].

The question is what we want as a state when a further development of agriculture and rural development is concerned (the issue of the internal prioritization located in the area of the political decision -making). The Montenegrin agriculture priorities regarding the defined strategic development sectors should focus on: the growth of measures which finance direct income and production support; a more intensive investments to increase the competitiveness, rural development and the IPA infrastructure; the establishment and accreditation of the Agency for Agricultural Payments; the introduction of new food safety standards, agricultural registers and data bases; the Farm Accounting Data Network (FADN); the LFA Regulation implementation; new employments... [48].

Finally, our research evidence based on similar studies Tankosić Vapa and Stojisavljević [49] emphasizes that expansion of the European Union, by joining the states of Eastern Europe (especially Romania and Bulgaria), and possibly of the Western Balkans where agriculture is significantly represented in the national economies, and which are lagging behind in almost all aspects of development of the “old” EU member states, represents an additional challenge to the makers of the EU agricultural policy. The importance of agriculture sector to the Montenegrin economy is great, because of Montenegrin agriculture is relatively small in European terms, but agriculture as a sector is major part of the requirements of the acquire communication and therefore has high importance on the Montenegro road to EU accession. This sector has to address significant reforms to assume the obligations of country’s perspective EU membership. In order to use the resources of these funds, Montenegro must first establish the necessary institutional framework consisting of a general IPA framework, as well as management and control systems.

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