

QUALITATIVE EVALUATION OF FINANCING PROGRAMS IN AGRICULTURAL SECTOR IN SERBIA

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Abstract

The incentive system is a part of agricultural policy. Activities of the agricultural policies in Serbia are mostly directed towards European integration and harmonized with the requirements of international organizations that assist in financing. In formulating the incentive system, policymakers are facing significant challenges. They include preserving social stability, improving living standards, achieving balanced regional development, and food security. Moreover, they face environmental issues and standards of sustainable development. The subject of this paper is to determine the current situation in the incentive system and estimate its effects on agricultural production in an empirical analysis of agricultural financing programs in Serbia. In the empirical analysis we use qualitative indicators calculated using publicly available secondary data from 2013 to 2019. We evaluate subsidies as an essential part of agriculture policy to estimate their impact. The results show that farmers had the highest interest for direct payments (the number of total approved requests was 20 times higher in 2019 compared to 2015). In addition, data and documents indicate that the incentive system in Serbia is not effective, because funds allocated for certain types of incentives were not claimed (especially in the group - Measures of Rural development). We have formulated several recommendations to agricultural policymakers based on the results of qualitative analysis and concluding remarks.

Key words: *agriculture, incentives, agricultural policy, qualitative indicators, Serbia*

Introduction

In agricultural and rural development of the Republic of Serbia there are three fundamental frameworks, the legislative, the financial and the strategic one (Jovanović, 2021). They are not dependant on each other, but there exists a

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certain level of mutual interaction. The interaction is reflected through financing policy (and consequently, by distributing budget funds) to improve agricultural regional and rural development. **The legislative framework** seems to be the basic framework for doing business in agriculture. It is impossible to achieve maximum results in strengthening agricultural production without legalizing business relations between entities, defining responsibilities, and obligations. Besides the legislative framework, financial and strategic frameworks are important for balanced rural development. **The financial framework** determines the possibilities for financing the rural and agricultural development, while **the strategic framework** determines the direction of future development activities (i.e., priority goals and their realization).

There is a two-way relation between the financial and strategic framework. The strategic framework determines investment priorities in agriculture. They are considered essential for future economic development, based on the results and priorities in the past. The financial framework defines possible ways for financing these priorities and allocates funds according to the type of incentive.

The financial framework of the agricultural and rural development in Serbia is determined on the one side by legislative acts and, on the other, by potential sources of financing. The crucial laws that shape the system of financing agriculture in Serbia are *the Law on Agriculture and Rural Development* and *the Law on Incentives in Agriculture and Rural Development*. *The Law on Agriculture and Rural Development* (“Official Gazette of the RS” No. 41/2009, 10/2013 - and other laws and 101/2016) is a legal act that regulates the forms of financing and the types of beneficiaries. In addition to incentives, this law has recognized the IPARD program as a form of support to agricultural holdings and companies paid from European Union funds.

The Law on Incentives in Agriculture and Rural Development (“Official Gazette of the RS” No. 10/2013, 142/2014, 103/2015 and 101/2016) relies on the Law on Agriculture and Rural Development. It presents a detailed explanation of forms of incentives, ways for their use, and entities that are eligible for incentives. In addition, the law provides the establishment of the Register of Incentives in Agriculture and Rural Development. The register should collect the data on the type and amount of realized incentives. Data from the Register should be publicly available for analytical and statistical purposes.

According to the legal acts in our country (which directly or indirectly create the business framework for legal entities and farmers in agriculture), sources of

funding can be divided into two categories. The first category are **budget funds** - funds appropriated from the budget Republic of Serbia. The second category are **other funds** - funds paid from other sources provided by law but have a different form and are not non-refundable.

Methodology

To achieve the goals of regional and agricultural development, it is often necessary to provide a combination of different sources of funding. Although the optimal model has been sought for many years, the universality does not apply (Grujić, 2017). According to its capabilities, each national economy allocates funds from the national budget, foreign sources, banks, and other.

However, the evaluation of approved funds must exist to assess the effects of invested funds and determine future development directions. With qualitative (or quantitative) evaluation, policymakers can control the degree of achievement of implementation in strategic goals. In this paper, the focus will be on a qualitative review of budget funds transferred to agriculture through incentives.

In this paper, the main legal act that regulates the type of incentives, the ways and conditions of using them (which was discussed in the previous paragraphs) is the starting document in analyzing the current system of incentives and their effects. The period of the qualitative analysis is limited by the availability of secondary data that comply with the reasonable level of reliability. This research covers the period 2013-2019. Useful and necessary data for evaluating the effects of approved incentives were collected from the documents adopted annually by the Ministry of Agriculture, Forestry and Water Management. The analysis also includes the data collected from the Directorate for Agrarian Payments.

Many relevant information and data were collected through desk research. They are presented through descriptive and basic indicators such as *the share of individual incentives in total incentives* and *the average value of incentives* from 2013 to 2019. The comparison method was used to analyze the amounts of planned and realized incentives during the observed period.

The results should be used to create appropriate recommendations for policymakers in agricultural economics. Indicators for the qualitative evaluation have been developed in this research: (a) Number of approved requests (current, outstanding, total), (b) Amounts of funds distributed (planned) from the national budget by type of incentive, (c) Degree of realization of incentives in agricul-

ture and rural development (share of realized funds in planned), d) Amounts of subsidies per unit of measure and type. Incentives financed by the budget (according to Serbia's Budget Law) include direct payments, rural development measures, special incentives, and credit support (Zubović, Jovanović, 2021).

Results

Direct payments are one of the forms of incentives for agricultural production and improvement of life quality in rural areas. There is great interest for them in our country. The number of approved requests for direct payments showed significant variations during the observed period. On the one hand, the changes are caused by the interest of agricultural producers in their use. On the other hand, the changes are caused by the allocated budget funds for each year. The highest number of realized requests was recorded in 2017. But, in 2019, almost 20 times more requests were approved than in 2015. The number of realized requests should be compared with the funds allocated from the national budget for incentives in agriculture.

The indicator of the funds for direct payments corresponds to the movement of the total requests approved. Both showed a tendency to grow over time. However, if we look at the average value of the approved requests, it was significantly higher in the first years (in 2015 and 2016). The reason lies in the number of requests, which were significantly less in those years. At the same time, the funds did not show relatively significant variations during the observed period.

Milk production is important for agricultural development and achieving the population's food security. Policymakers should have a more dedicated and serious approach to creating and implementing policy measures to support this agricultural activity. Research results showed that the funds allocated for milk premiums in 2019 were approximately 70% of the funds from 2013. The funds for milk premiums per litre of cow's, sheep's or goat's milk did not change during the seven years (7 dinars per litre). It can be calculated that, on average, the amount of allocated funds could satisfy the average production of 486 million litres of milk. This form of subsidizing agricultural production is characterized by a high degree of realization. In other words, the share of realized funds in the total amount of planned funds for these purposes was above 99 percent (Directorate for Agrarian Payment, 2020).

The analysis of qualitative indicators in this paper showed that *incentives for plant production* have been very interesting for agricultural producers and farmers for years. The average number of requests was about 270 thousand per year. Besides that, the level of funds allocated for these purposes has not reached the level of 2013 yet. As the interest exists, it can be concluded that the approach to this measure should be more careful. First of all, a quantitative analysis should be conducted to estimate the effects of the incentives on plant production. The results should be used to improve their productivity and efficiency in the future. If the obtained results show the improvement of plant production using the incentives, the future funds for these purposes should increase.

In addition to plant production, direct payments also encourage *livestock production*. Over the years, the most significant interest of farmers has been in-breeding dairy cows, fattening cattle, cows for raising calves and beehives. At the same time, there was no interest in some incentives (especially in fishing), although there are funds allocated for their implementation. *Recourses* are the fourth form of direct payments characterized by structural changes. Since 2016, the policymakers have abolished recourses for fuel (primarily due to problems in approving and implementing requests). Until 2017 there was only a category of recourses for fertilizer. Although these payments were very significant for farmers, the policymakers have abolished them. On the other hand, insurance premiums for crops, fruits, perennial crops, nurseries and animals ceased in 2016. Today exists only funds for storage costs in public warehouses.

The results of the analysis point to the following conclusions:

- *Regular planning of budget funds for incentives with no interest by farmers or agricultural producers* – Seven years since the adoption of the Law on Incentives in Agriculture and Rural Development, some budget lines still exist even no requests have been realized so far. That funds could be used for other payments, but they are captured in budget lines without purposes and interests.
- *Inadequate incentives* - There is a possibility that agricultural policymakers are not aware of the real needs in certain agricultural activities. For years, they planned and distributed funds for which there was no interest. Also, it is possible to exist obstacles in meeting administrative conditions for their implementation.

- *Unfamiliar incentives* – Observation of the mentioned data brings into question the adequacy of planning and creation of the agricultural policy. At the same time, there is doubt in the knowledge and awareness of farmers and agricultural producers about the possibilities of using incentives. In other words, are they sufficiently informed to apply and get the right to use them?

The idea for *rural development measures* is based on harmonizing the living standards between rural and urban areas. Measures that include free financial assistance reduce the exodus on the rural-urban relation. At the same time, they provide new job opportunities for the working-age population in rural areas. Also, those incentives are aimed to improve the rural population structure (young people are motivated to stay so that the age structure will be “younger” than usual). The pressure on urban areas will be reduced. Descriptive analysis of the indicators (by subgroups) showed that most budget funds were allocated for incentives to improve competitiveness and achieve quality standards (10.7 billion dinars) in the observed period.

On the other hand, the smallest amount of budget funds was allocated to incentives for implementing local strategies for rural development. (0.7 billion dinars). According to the official data published by the Directorate for Agrarian Payment, there were no realized requests for this type of incentive in 2017 and 2018. On the opposite, only four requests for implementing local strategies for rural development were realized. Since 2017, numbers have shown a growing trend in the funds dedicated to diversifying farmers’ incomes and stimulating the rural economy (1.3 billion dinars in total).

More than 60 percent of funds were allocated for investment in rural infrastructure at the beginning of the observed period. However, based on a review of relevant documentation, this type of incentive was abolished without a clear explanation. Another similar situation applied to incentives to improve training in rural development. They were also abolished in 2017. One explanation indicates that in the system of the incentives exists one group for enhancing the creation of knowledge and its transfer. A logical explanation suggests that policymakers abolished the previous group and reallocated funds into this one. Support for young farmers is becoming the dominant form, with a share of almost 50 percent in 2019. The number of realized requests indicates that a significantly higher number of realized requests were in 2017 and 2018, compared to other years. This situation was due to high interest in incentives for young farmers or agricultural producers in rural areas.

Interestingly, after these numbers of approved and realized funds, there is no request realized on this basis in 2019. Unclear numbers and situations indicate the need for further analysis, primarily with the representatives of the Directorate for Agrarian Payments, to establish the causes. The highest degree of realization was achieved in incentives for improving the creation and transfer of knowledge (average 95.2 percent). In contrast, the lowest level of realization was completed in the group of incentives for income diversification (average 58 percent).

Special incentives are the third group of incentives. Their implementation has effects on both agricultural production and sustainable rural development. Their purpose is different from the other two types of incentives. Special incentives are grouped into five smaller subgroups. One of them is intended to implement breeding programs in animal husbandry. They had constant and stable growth. The total number of realized requests by 2019 was 1,713 (428 requests on average per year). The results showed the stability in the number of realized requests and the stability in the growth of allocated budget funds. It can be concluded that farmers are interested in this subgroup of incentives and that selection measures are adequately assessed and meet their needs. This subgroup of incentives has the highest level of realization (98 percent on average per year). The lowest average level of realization has the incentives for promotional activities in agriculture (25 percent on average per year). Those numbers indicate a need for special consideration of policymakers for this subgroup. On the one hand, it is possible that farmers are not sufficiently informed about the ways and conditions of their use. On the other hand, it is possible that the planned amounts of funds do not correspond to the actual needs, which indicates the revision of how these funds are planned and improve this form of the business process.

It is interesting to note that the financing policy in Serbia also supports the establishment and maintenance of data collection systems, continuous monitoring and analysis, and the dissemination and transparency of results. Funds can be used only by entrepreneurs, enterprises and scientific organizations.

Agricultural farms have difficult access to loans from commercial banks compared to other subjects. The policymakers have determined a budget line within the incentive system to eliminate (or reduce) such a gap between economic entities. *Credit support* is a measure that includes payments to agricultural farms to support them in getting credits from banks. This measure was

an integral part of the direct payments in 2013 and 2014. It was separated as a special measure after 2015. Since then, around 2.3 billion dinars have been allocated for this purpose. Most funds were approved in 2017 and the least in 2015. The number of realized requests has been 423 from 2017 till the end of the observed period.

Conclusions

When analyzing incentives in agriculture and the effects of subsidies granted to agricultural enterprises and/or individuals at a national level, the level of implementation is emphasized as an important qualitative indicator. The value of this indicator reveals: (a) The quality of the annual budget plan and the structure of the incentive system, (b) The compliance of farmers' needs and policy measures; (c) The compliance of strategic and legislative documents in agriculture and rural development; (d) The expertise of personnel in charge of monitoring the incentives and projections of future needs in agriculture.

By reviewing all relevant strategic and financial documents, we conclude that the current state of agricultural financing policy does not fully reflect its real needs. Although policymakers undertake strong efforts to set up a system as efficient as possible, it does not seem to be based on empirical evidence. At the same time, the adopted strategic documents set goals for the development of agriculture but without clear indicators for their monitoring. Previous evaluation of the undertaken activities was not available.

The Directorate for Agrarian Payments is the first and most important institution responsible for agriculture and rural development subsidies. It assists farmers in registering in the official Register of Agricultural Farms, applying for incentives, and others. At the same time, as one of the Agriculture and Rural Development Strategy goals is to encourage co-operation with scientific research institutions, the Directorate for Agrarian Payments should be the most essential (micro and macro) data creator that could serve in various economic and non-economic research.

Recommendations for agrarian policymakers based on our research are the following:

- **Create indicators to monitor the implementation and estimate the impact of the incentive systems** - Indicators used in this paper have been developed to evaluate the incentive system over a six-year period. They can also be used for future evaluations of the effects of

approved incentives. In addition to the indicators used in this research, more indicators could be created depending on the data availability. An indicator of the Participation of Approved Requests by type of incentive in the total number of requests received could be created. It would be especially important to track the requests submitted but not approved to determine differences in incentive users.

- **Conduct cost-benefit analysis of the subsidy policy** - One of the methods to evaluate the incentive system is to conduct a cost-benefit analysis. It can estimate the economic efficiency of the subsidy programs, expressed as the relationship between the cost of the program (all expenditures resulting from its implementation) and the benefits of the program (all gains resulting from its implementation). This would reveal all the benefits that the agrarian subsidy system can achieve. The method is complex, and it requires the inclusion of experts from different fields, but the results would unequivocally contribute to improving the subsidy policy and agricultural production.
- **Increase appropriations for state support with the greatest effects** – Qualitative analysis of the indicators show that there are subsidies with a low level of efficiency. Guidelines for future planning directs agrarian policymakers need to consider reasons for low efficiency and possible instruments to increase it. If farmers are not sufficiently familiar with all forms of subsidies, educational seminars should be provided, along with promotional materials and assistance when applying for subsidies. At the same time, if there is no sufficient demand for some subsidy, the funds should be reallocated to others that are more needed. Finally, the efficiency of subsidies for livestock production needs to be considered in particular.

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