The relevance of developing a methodological approach to evaluating the effectiveness of subsidies as a mechanism for increasing the innovative activity of crop production in the Pskov region

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Abstract. The methodical basis for evaluating the effectiveness of state support in domestic agriculture is the assessment by the criterion of effectiveness. It is the methodical approach used in assessing the development of the constituent entities of the Russian Federation, municipalities, the effectiveness of implementing the federal, regional, and sectoral programs and strategies. Efficiency, defined as the achievement of certain indicators of stated or planned goals, as the solution of tasks in accordance with certain indicators, is assessed by the index method. In this case, it is not the absolute or relative change of the result that is assessed but the level of its achievement. The use of performance makes it difficult to assess the level of innovation activity. The continuing growth in state support for crop production in the context of budget deficits, the entry of the Russian Federation into the World Trade Organization, and the need to increase the innovative activity of the industry require the justification of any financial decisions, including those implemented in the form of subsidies. The rationale should serve as a methodology for assessing the effectiveness of subsidies, which is based on the use of the criterion “result” and not its “effectiveness”. The development of a methodical approach to evaluating the effectiveness of subsidies as a mechanism for increasing the innovative activity of crop production can make the assessment procedure more transparent, consistent with international assessment criteria, replacing performance indicators in the Subsidy Agreements with planned results and volumes and types of spending. The use of a methodical approach will lead to a reduction in the volumes of inefficient and unjustified budget expenditures, providing an additional impetus for increasing innovation activity in the crop production sector of the Pskov region.

The universally used methodological bases for evaluating the effectiveness of subsidies are contained in regulatory documents at both the federal and regional levels. They use various quantitative and qualitative indicators as criteria for performance evaluation.

The main disadvantage of the applied efficiency indicators of subsidies is their limitations: they evaluate the quality of solving only certain problems of a particular industry or a specific recipient of
subsidies. Methodical approaches using these indicators do not allow to assess the level and trends of innovative development.

Even in the aggregate, the indicators used do not allow an objective assessment of either the socio-economic development of a region when subsidizing individual enterprises of the same industry, nor the development of the industry while subsidizing individual territories and enterprises. This makes it difficult for regional authorities to make strategic management decisions when formulating and improving subsidies policy.

The methodical basis for evaluating the effectiveness of state support in domestic agriculture is an assessment by the criterion of effectiveness. It is this methodical approach that is used in assessing the development of the constituent entities of the Russian Federation, municipalities, the effectiveness of the implementation of federal and regional, as well as sectoral programs and strategies.

Effectiveness, defined as the achievement of certain indicators of stated or planned goals and as the solution of tasks in accordance with certain indicators, is evaluated by the index method. In this case, it is not the absolute or relative change of the result that is assessed but the level of its achievement. The use of performance makes it difficult to assess the already difficult to determine level of innovation activity.

The continued growth in state support for crop production in the context of the budget deficit, the entry of the Russian Federation into the World Trade Organization, and the need to increase the innovative activity of the industry require the justification of any financial decisions, including those implemented in the form of subsidies. The rationale should serve as a methodology for assessing the effectiveness of subsidies, which is based on the use of the criterion “result” and not “effectiveness”.

According to the Decree of the Administration of the Pskov region of February 14, 2017 No. 68 “On the Procedure for Granting Subsidies from the Regional Budget to Support Crop Production”, the effectiveness of subsidies is assessed by calculating its effectiveness. It is the “effectiveness” criterion that is contained in the standard form of the grant agreement concluded between the Authorized body and the grant recipient, regardless of the specific direction of state support.

In 2016 in the Pskov region, there was a significant (more than 1.5 times compared to 2014) growth in the volume of state support for crop production in the Pskov region: industry financing reached the level of 189.77 million rubles (Figure 1). Since the beginning of 2017, the format of support for agricultural producers has changed in the region. For example, a per-hectare support has been introduced for those farmers who are engaged in processing and putting unused land into agricultural use.

The observed increase in state support in crop production per agricultural enterprise is the result of not only the growth of the industry’s funding from the state but also the result of a decrease in the number of agricultural enterprises in the region (Figure 2). Therefore, it is not possible to assess the real benefits of subsidies for agricultural producers and the industry and the Pskov region using the already accepted methods and criteria.

Solving the problem of assessing the impact of subsidies on the level of innovation activity in such conditions is not possible. Of course, in contemporary scientific publications, there are various approaches to determining the effectiveness of the using government subsidies. However, in most studies, the assessment of the economic efficiency of state support for agriculture is limited to calculating the effectiveness of specific types of support or calculating the total amount of funds issued to farm.
Figure 1. Financing measures of state support for crop production of the Pskov region in 2014-2016.

Figure 2. State support in crop production per 1 agricultural enterprise.

In the study “Methodological Approaches to Evaluating the Effectiveness of State Support for Agriculture on the Example of International Experience” of the Eurasian Development Bank, the developed countries widely practice the method of calculating the volume and effectiveness of support recommended by the World Trade Organization. Government support measures are divided into two conditional types called “baskets”. A “green basket” of support measures can be provided without restriction, since it is a set of measures that do not have or have minimal impact on trade. A “yellow basket” is the total cost of direct and indirect support to agricultural producers, affecting the price and cost of products. An assessment of the effectiveness of government support used by the Organization for Economic Cooperation and Development (OECD) involves:

1. Estimates of producer support: the calculation of a set of indicators characterizing the state support of the agro-industrial complex provided to all countries that are members of the OECD and, selectively, developing countries that are not part of it.
2. Estimation of the volume of indirect assistance: the calculation of the indicator which is the difference between internal and reference prices.
3. Evaluation of agricultural policy which involves modeling the distribution of benefits between the main economic agents – beneficiaries, suppliers, and factors of production, consumers.
The World Bank uses two main approaches to assessing the effectiveness of government support:

- In terms of the results obtained with respect to the stated goals, benchmarks, standards or expectations;
- Counterfeit analysis.

Many Russian scientists, A. I. Altukhov, N. A. Borhunov, V. Z. Mazloev, V. Ya. Uzun, I. G. Ushachev, L. I. Chernikova, and others, investigated the problems of increasing the economic efficiency of methods and mechanism of state support and regulation of reproduction processes. V. Ya. Uzun and E. A. Gataulina believe that there is no common global or Russian methodology for assessing the effectiveness of state support for agricultural producers. E. A. Cherdantseva offers as a basic methodology a regression relationship between the size of subsidies and the profit of an economic entity before tax. According to the scientist, the high value of the correlation coefficient makes subsidies a necessary condition for reproduction processes in agricultural production.

Employees of the Federal State Institution “Center for Expert-Analytical Evaluation of the Efficiency of the Agro-Industrial Complex” under the Ministry of Agriculture of the Russian Federation propose a method for calculating the efficiency of using budget funds received by agricultural producers. The technique covers almost all areas of budget financing of agricultural producers. However, the methodical level of this development is insufficient to assess subsidies as a mechanism for the innovative development of economic entities in the industry.

V. G. Pechenkin developed a methodology for assessing subsidies which is based on the calculation of the coefficient of tax return. D.A. Zyukin proposes a method of assessing the effectiveness of state support based on the ratio of the main production and economic indicators in various groups of farms. The method involves the calculation of correlation, conducting a pair regression, the construction of time series and trend lines.

The All-Russian Research Institute of Economics, Labor, and Management in Agriculture has developed a methodology for assessing the effectiveness of the use of budget funds in agriculture, which involves the calculation of efficiency through the ratio of state support and its economic result.

The development of a methodical approach to assessing the effectiveness of crop subsidies (as a mechanism for increasing innovation activity) should ensure that the interests of all participants in the mechanism of this most important form of state support (distributors, direct and indirect recipients of funds) are taken into account, as well as ensure that the “result” criterion is used and the multicomponent indicator is calculated as “integral effectiveness of subsidies” (in terms of types of support) [7].

Achieving the goal of research on the stated topic involves the following tasks:

- Systematization of methodical approaches and methodologies for evaluating the effectiveness of subsidies, final indicators and criteria for the effectiveness of subsidies;
- Evaluating the effectiveness of subsidies using the results of solving the first problem. Identifying the strengths and weaknesses of existing techniques;
- Conducting a retrospective analysis of the effectiveness of subsidies from the point of view of all interested parties: agricultural producers, distributors of funds, other participants. Conducting a retrospective analysis of the effectiveness of subsidies in terms of increasing the innovative activity of crop production;
- Building models of the efficiency estimation algorithm and calculating the multi-component indicator of the “integral effectiveness of subsidies”;
- Evaluating the effectiveness of subsidies as a mechanism for increasing innovation activity in order to test the developed models of the algorithm and calculation. Select priority model.

The applied significance of the research results on the stated topic is that the developed methodology for calculating the result of subsidies in crop production would make the procedure for evaluating the effectiveness of a more transparent, corresponding to relevant international evaluation criteria. It would allow the replacement of performance indicators in the Subsidy Agreements with the planned results,
volumes, and types of expenditure of funds. The use of the developed methodology would allow improving the mechanism of state support for the innovative development of the industry. Ultimately, this should reduce the amount of inefficient and insufficiently substantiated budget expenditures, provide an impetus for increasing innovation activity in the crop production sector of the Pskov region.

New and augmented methods for assessing the effectiveness of crop subsidies, allowing to determine the exact quantitatively measurable results used in the formation and improvement of measures to support agricultural producers, would expand the practice of creating conditions to promote the intensification of sectoral development. This will ensure a gradual transition to an innovative scenario for the development of the agro-industrial complex of the region.

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