

# State Programs as a Tool for Government Regulation of Regional Development

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**Abstract** — The program-target approach is aimed to ensure the government regulation and support of the national economy, to solve the challenges arising in the course of the development of individual industries and regions. The state programs provide for integrated control within the entire scope of the regulated activities. However, today, the efficient implementation of state programs faces a number of challenges both at the federal and regional levels. This article reviews the main aspects of financing, implementation, and assessment of state programs. A conclusion is made on inadequate and untimely financing of state programs and insufficient application of federal and regional funds. Analysis of the rates of the state program activities delivery, control events' arrival, and average target value achievement confirmed that the implementation rate of state programs in the Volograd Region is low. The article pays special attention to improving the approach to assessing the state program implementation at the regional level. It includes an assessment of both the efficiency and performance of state programs using weight factors. Based on the improved approach, the state programs in the Volograd Region were ranked in the descending order of their performance and efficiency. The article also considers the possible ways for improving the implementation of state programs.

**Keywords** — state programs, Volograd Region, implementation assessment, program-target approach, state program financing

## I. INTRODUCTION

In the modern context, increasing attention is paid to the rational and efficient use of budget funds, which is particularly relevant for the Russian economy given the deficit of the federal budget (in 2012 to 2017). Program-based budgeting is one of the most efficient approaches to planning and financing budget expenditures.

State programs are an important tool within this approach allowing for comprehensive understanding and handling of medium-term and long-term problems of the Government's economic policy. Today, state programs are the main proven and efficient tool for result-oriented planning. Program-based budgeting promotes efficiency and transparency, applying all tools that the government may have to develop the economy through the implementation of state programs.

According to the Decree of the Government of the Russian Federation [1], five state programs are included in the list of "pilot" state programs to be translated to the project

management approach from 2018. Thus, according to the plan, the procedures for the development and revision of state programs will be simplified, resulting in their improved implementation. Therefore, the development of state programs is reasonable and driven by their urgent and essential character due to their integration into the "pilot" state programs.

Various aspects of the program-target approach were studied by such authors as Valishvili M.A., Nikitskaya E.F., [2], Lobko A.G., Rayzberg B.A. [3], Rapoport V.S. [4], Sidorina I.F. [5] and others.

Issues of state program implementation and assessment at the regional level are reviewed in the papers of the following scholars: Vasilyev S.V., Zhukovskiy A.I., Shtreys D.S. [6], Gomanova T.K. [7], Uksumenko A.A. [8], Chulkov A.S. [9] and others. We have to admit that the Russian economics lacks papers dedicated to the issues of financing, implementation, and assessment of state programs in the Volograd Region.

The objective of this study is to develop recommendations for improving the implementation of state programs at the federal and regional levels.

To achieve this objective, the following tasks were determined: 1) review the current state and issues of financing and implementation of state programs of the Russian Federation and the Volograd Region; 2) suggest possible ways for improving the approach to assessing the regional program implementation.

## II. MATERIALS AND METHODS (MODEL)

The regulatory framework of this study includes the Budgetary Code of the Russian Federation, laws and regulations of the Russian Federation and the Volograd Region governing the development, implementation, and assessment of the efficiency of state programs of the Russian Federation and the Volograd Region.

The information and empirical base of the study includes official statistical materials provided on the portal of state programs of the Russian Federation, consolidated annual reports on the implementation progress and efficiency assessment of state programs of the Russian Federation from 2013 to 2017 and those of the Volograd Region from 2014 to 2017; analytical, review papers of researchers published in print media and on the Internet.

This study is based on the research and consolidation of theoretical and factual materials on financing, implementation, and assessment of state programs using various approaches: systematic, comparative and tabular and graphic processing and presentation of data.

III. RESULTS AND DISCUSSION

State programs are implemented using the finances allocated by the federal budget and state non-budgetary funds of the Russian Federation to cover the expenditure obligations of the Russian Federation [10].

The current analysis of the structure of program-related expenses of the federal budget shows that the majority (around 50%) of the budget allocations are appropriated towards New Quality of Life programs.

Figure 1 shows the structure of program-related expenses of the federal budget from 2013 to 2019. 2019 is characterized by a reduction in the share of budget allocations towards Innovative Development and Modernization of the Economy programs and an increase in the share of allocations towards Balanced Regional Development programs.

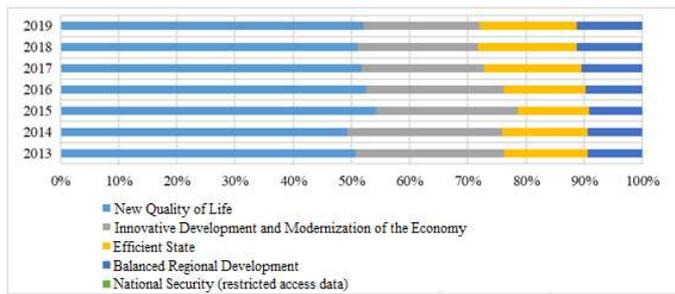


Fig. 1. Structure of program-related expenses of the federal budget from 2013 to 2019, in % (compiled by the author acc. to [11])

In addition to the structure of program-related expenses, the ratio of actual to planned expenditures for the state programs of the Russian Federation is of interest.

Thus, according to Figure 2, from 2013 to 2016, there was an increase in the actual expenditures, however, from 2013 to 2015, the planned values exceeded the actual expenditures. In 2016 and 2017, the cash utilization rate was 104.7% and 101.2% accordingly.

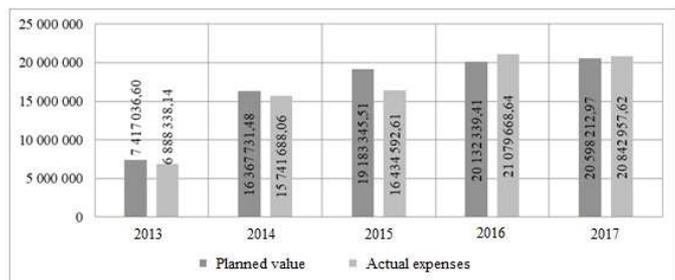


Fig. 2. Ratio of actual to planned expenditures of state programs of the Russian Federation from 2013 to 2017, million Russian rubles (compiled by the author acc. to [11])

The main reason for the growth of the cash utilization rate from 2016 to 2017 is the increase in the actual expenses for the implementation of state programs borne by legal entities. However, the fact that most funds are provided by legal entities (see Fig. 3) increases the risks of underfunding and inefficient implementation of state programs, since legal entities cannot participate in state programs, therefore, their authorities and responsibilities are not defined.

The problem of underfunding is also relevant for the state programs of the Volgograd Region. In 2017, the actual expenditures towards the implementation of state programs reduced to 122,377 million Russian rubles (see Fig. 4), which is even lower than in 2015. In 2014, 2015 and 2017, the actual expenditures failed to reach the planned values, assuming improper and inaccurate planning of fundraising for the implementation of state programs.

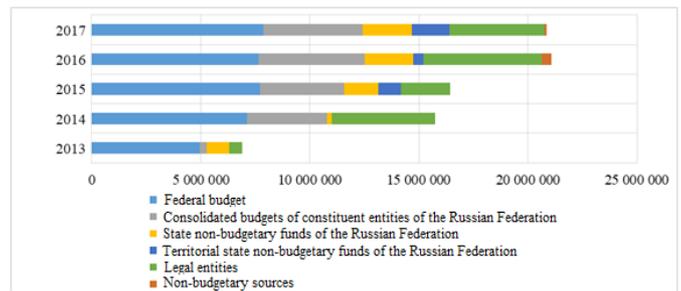


Fig. 3. Actual expenditures of state programs of the Russian Federation by sources of funding (million Russian rubles) from 2013 to 2017 (compiled by the author acc. to [11])

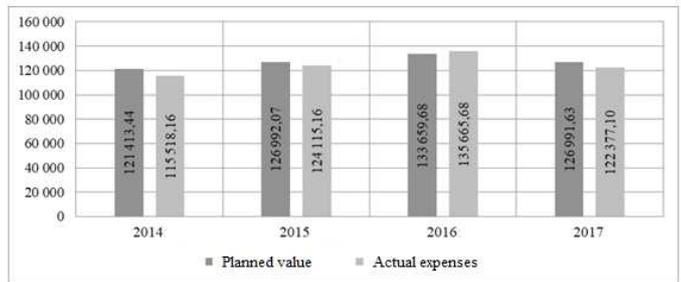


Fig. 4. Ratio of actual to planned expenditures of state programs of the Volgograd Region in 2014 to 2017, million Russian rubles (compiled by the author acc. to [12])

The reason for the decrease in the actual expenditures of state programs in 2017 (by 10%) was a reduction of funds allocated from the regional (by 0.2%) and local (by 13.5%) budgets, non-budgetary sources (by 24.3%).

Other important implementation rates are those of target value achievement, activities delivery and control events' arrival, based on the state program plans for the Volgograd Region.

According to Tables 1 to 3, 100% rates are achieved only in a small number of state programs in the Volgograd Region.

TABLE 1. STATE PROGRAM ACTIVITIES' DELIVERY RATE IN THE VOLGOGRAD REGION FROM 2015 TO 2017

Activities' delivery rate	Number of state programs in 2015	Number of state programs in 2016	Number of state programs in 2017
100%	10	16	8
90-99%	8	5	8
80-89%	5	11	8
Less than 80%	10	3	5
Total	33	35	29

a. all calculations were performed by the author based on the research materials

TABLE 2. STATE PROGRAM CONTROL EVENTS' ARRIVAL RATE BASED ON THE STATE PROGRAM PLANS FOR THE VOLGOGRAD REGION FROM 2015 TO 2017

Control events' arrival rate	Number of state programs in 2015	Number of state programs in 2016	Number of state programs in 2017
100%	-	18	16
90-99%	-	2	7
80-89%	-	6	2
Less than 80%	-	5	4
N/A	-	4	-
Total	33	35	29

a. all calculations were performed by the author based on the research materials

TABLE 3. AVERAGE TARGET VALUE ACHIEVEMENT RATE BASED ON THE STATE PROGRAM PLANS FOR THE VOLGOGRAD REGION FROM 2015 TO 2017

Average target value achievement rate	Number of state programs in 2015	Number of state programs in 2016	Number of state programs in 2017
100%	14	15	15
90-99%	12	15	7
80-89%	3	2	4
Less than 80%	4	3	3
Total	33	35	29

a. all calculations were performed by the author based on the research materials

These problems affect the final assessment of the state program implementation.

The established practice of assessing the state program implementation does not distinguish between performance and efficiency. Most methods of assessing the state program implementation consider the ratio of actual to planned value.

Today, the approach to assessing the state program implementation in the Volgograd Region is mainly aimed at assessing the state program efficiency, rather than its performance; this approach has its shortcomings due to the lack of weight factors. For example, with regard to the state program of Improving Road Safety in the Volgograd Region from 2014 to 2016, we see that the program activities' delivery rate and the rate of meeting the planned expenditure values are low. However, according to the approach used, in 2016 the program had the highest implementation rate of 157.4%. Therefore, the existing approach to assessing the implementation of state programs in the Volgograd Region needs adjustment.

Performance is the correlation between planned and actual values, while efficiency describes the relation between the final result and the funds allocated for achieving of this result. Performance and efficiency of state programs can be evaluated

with an overall performance indicator which can be found using the formula 1 below:

$$\Gamma\Pi_{P\text{Э}} = k_1 \Gamma\Pi_P + k_2 \Gamma\Pi_{\text{Э}}, k_1 + k_2 = 1 \quad (1)$$

where  $\Gamma\Pi_{P\text{Э}}$  is the value (overall performance indicator) describing the performance and efficiency of a state program;

$\Gamma\Pi_P$  is the value describing performance of a state program;

$\Gamma\Pi_{\text{Э}}$  is the value describing efficiency of a state program;

$k_1$  is the weight factor for the performance describing value;

$k_2$  is the weight factor for the efficiency describing value.

Weight factors depend on whether the focus of a state program is on achieving the set objectives or on obtaining the best possible results with minimum expenditures. If the goal is to achieve maximum results,  $k_1$  will tend to 1. If the goal is to obtain results with minimum costs,  $k_2$  will tend to 1.

The value describing the performance of a state program is found using the formula 2 below:

$$\Gamma\Pi_P = k_3 CP_M + k_4 CC_{\text{Э3}} + k_5 CP_{\Gamma\Pi}, \quad (2)$$

where  $CP_M$  is the degree to which the planned measures have been implemented;

$CC_{\text{Э3}}$  is the degree to which the allocated budget has been met;

$CP_{\Gamma\Pi}$  is the degree to which the goals of a state program have been achieved;

$k_3$  is the weight factor for the value showing the degree to which the planned measures have been implemented;

$k_4$  is the weight factor for the value showing the degree to which the allocated budget has been met;

$k_5$  is the weight factor for the value showing the degree to which the goals of a governmental program have been achieved.

According to the distribution of weight factors used in the method applied for efficiency assessment of the state programs in the Russian Federation the weight factor  $k_3$  shall equal 0.35;  $k_4 = 0.2$  and  $k_5 = 0.45$ .

Efficiency of a state program is determined using the formula 3 below:

$$\Gamma\Pi_{\text{Э}} = \frac{CP_{\Gamma\Pi}}{CC_{\text{Э3}}}, \quad (3)$$

Further on, all of the above mentioned values will be found using the formulas in the efficiency assessment method applied for state programs implemented in the Volgograd region [13].

Table 4 below shows the values found with the proposed by the author method. The implemented state programs were ranked in the order from the most to least efficient and divided into five categories depending on the achieved level of performance and efficiency:

1. State programs with a high efficiency and performance level (100% and above);
2. State programs with an above-average efficiency and performance level (from 96.5% to 100%);
3. State programs with a below-average efficiency and performance level (from 93% to 96.5%);
4. State programs with a satisfactory efficiency and performance level (from 75% to 93%);
5. State programs with a low efficiency and performance level (below 75%).

TABLE 4. STATE PROGRAMS IMPLEMENTED IN THE VOLGOGRAD REGION IN 2016 RANKED FROM THE MOST TO LEAST EFFICIENT

State program	Performance and efficiency value, in %
<b>State programs with a high efficiency and performance level</b>	
“Application of the space industry achievements for the purposes of social, economic and innovative development of the Volgograd region in 2014-2018”	105.96
“Improvement of traffic safety in the Volgograd region in 2014-2026”	105.83
“Information-oriented society (2014-2020)”	101.59
“Youth policy of the Volgograd region in 2014-2016”	100.68
“Development of cultural and tourism sectors in the Volgograd region in 2015-2020”	100.28
“Recreational and health-improvement programs for the children residing in the Volgograd region” in 2016-2018	100.12
“Assistance with voluntary migration to the Russian Federation”	100.05
“Energy saving and increasing of energy efficiency in the Volgograd region during the period till 2020”	100.01
“Exploitation and protection of water bodies, prevention of negative impacts of high waters in the Volgograd region in 2014-2020”	100.01
“Increase of capacity of general education institutions of the Volgograd region in the view of expected demand and modern educational practice” for 2016-2025	100.00
<b>State programs with an above-average efficiency and performance level</b>	
“Development of a system for prevention of non-medical use of drugs, alcohol and other psychoactive substances; improvement of the medical assistance programs for narcological patients in the Volgograd region” in 2016-2017	99.96
“Stable development of rural areas in 2014-2017 and with the perspective to 2020”	99.78
“Development of the hunting and fishery sector in the Volgograd region” in 2014-2020	99.78
“Development of the agricultural sector and regulation of the agricultural and food markets” in 2014-2020	99.41
“Management of state property in the Volgograd region” in 2015-2020	98.58
“Development of the industrial sector and improvement of	98.32

competitiveness of the local products in the Volgograd region” for 2014-2020	
“Providing of conditions for supply of quality housing and utility services for the residents of the Volgograd region” in 2016-2020	98.09
“Management of state finances of the Volgograd region” in 2014-2016	97.9
“Development of the educational sector” in 2014-2020	97.01
“Promotion of physical culture and sport in the Volgograd region” in 2014-2018	96.85
“Promotion of the ideas of the unity of the Russian nature and support to the Cossacks culture in the Volgograd region” in 2015-2020	96.76
<b>State programs with a below-average efficiency and performance level</b>	
“Development and improvement of the territorial self-government in the Volgograd region” in 2014-2018	96.08
“Providing of the accessible and comfortable environment for physically challenged people and people with limited mobility in the Volgograd region” in 2014-2016	95.77
“Prevention of crime and ensuring public security in the Volgograd region” in 2014-2016	95.43
“Social assistance” in 2014-2016 with the perspective till 2020	95.32
“Development of health care sector in the Volgograd region” in 2014-2016 with the perspective till 2020	94.81
“Employment promotion, improvement of labour conditions and occupational safety in the Volgograd region” in 2014-2020	94.77
“Civil protection in emergency situations and ensuring of fire safety” in 2014-2017	94.28
“Development of the transport infrastructure of the Volgograd region” in 2014-2017	93.94
“Affordable and comfortable housing for the people of the Volgograd region” in 2016-2020	93.85
<b>State programs with a satisfactory efficiency and performance level</b>	
“Economic development and innovative economy” in 2014-2016	89.21
“Environmental protection in the Volgograd region” in 2014-2020	88.00
“Prevention and eradication of African Swine Fever in the Volgograd region” in 2014-2016	85.51
“Integrated regional program for development of the professional training” in 2014-2016	81.77
“State support of community-focused non-profits on the territory of the Volgograd region in 2014-2020	80.94

<sup>a</sup> all calculations were performed by the author based on the research materials

Calculation of the efficiency and performance using the method proposed by the author in case of several state programs produced the results which significantly differ from the calculation results obtained with the method currently used for assessment of state program efficiency. In particular, different calculation results were obtained for the following state programs:

- “Development of the educational sector” in 2014-2020;
- “Application of the space industry achievements for the purposes of social, economic and innovative development of the Volgograd region in 2014-2018”;
- “Economic development and innovative economy” in 2014-2016;
- “Development of cultural and tourism sectors in the Volgograd region in 2015-2020”;
- “Development of the hunting and fishery sector in the Volgograd region” in 2014-2020;

- "State support of community-focused non-profits on the territory of the Volgograd region in 2014-2020 etc.

The results obtained with the method proposed by the author are more representative as they take into account such constituents as the actual results of the implemented measures, achievement of the target indicators and expenditures levels. Thus the efficiency level was increased for some state programs where the aforementioned constituents were positive and lowered for other state programs respectively. However, the proposed method is not free from shortcomings such as: in case the weight factors change, the performance and efficiency values in different time periods cannot be compared; there is no way to assess the performance of responsible persons, etc.

#### IV. CONCLUSION

The performed overview of the current state programs in the Russian Federation and in the Volgograd Region revealed a number of weak points in terms of financing and implementation.

The reasons for poor financing and implementation practices include inadequate and untimely financing, ill cash administration, lacking achievement of target indicators, failures to implement planned measures, non-arrival of control events, imperfections of currently applied methods of assessment of state program efficiency.

Based on the performed research the author is able to propose a number of recommendations for improving of state program efficiency.

During planning of funds and resources to be allocated for a state program more detailed expenditure structures should be drawn and a number of options should be evaluated with due consideration of the progressive character of resources' provision and possible use of substitutes of initial resources.

It is necessary to update the procedures for development and implementation of state programs which is achievable through the improvement of legal and regulatory base, planning of budgetary provisions based on the efficiency assessment of a state program and ensuring of timely financing.

One of the weak points, as was mentioned above, is inadequate and untimely financing. The current situation can be improved by adopting the following measures:

- Development of realistic procedures for risk assessment and management of state programs;
- Ensuring low inflation level and better price forecasting environment;
- Creation of an efficient system for financial control over spending of the budget funds allocated for implementation of state programs;

For the purposes of achieving of target indicators of the state programs in the Russian Federation and Volgograd region it is advisable to:

- Ensure better performance of duties by responsible officials and their associates commissioned with monitoring the progress of state programs;

- Enhance the quality and precision of budgetary funds allocation as well as allocation of the funds from extra-budgetary sources;

- Introduce modifications into the planned measures and set target indicators based on actual provision of finances from the federal/regional budget;

- In a timely manner approve and amend implementation schedules of state programs.

Another important recommendation is to ensure realistic assessment of efficiency and performance of state programs and to gain good understanding of the difference between the terms "performance" and "efficiency". With the current imperfect method for efficiency assessment of budget funds allocation there is a risk of receiving a distorted picture of actual state program implementation results.

The research results described in this study do not cover all the issues of financing, implementation and efficiency assessment of state programs. The recommendations provided by the author herein can serve as a basis for development of integrated measures for improvement of state program implementation.

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