Opportunities for Assessing the Implementation of the
Strategies for the Development of Russia's Macroregions

O.V. Berezhnaya¹, E.V. Berezhnaya², K.S. Chikaeva³, M.A. Polivina⁴, V.I. Berezhnoy⁵

Abstract:

The paper discusses the problems of assessing the implementation of strategies for the
development of Russia's macroregions and proposes a scheme for studying the implementation
of these strategies for the development of Russian regions in a down economy.

The North Caucasian Federal District was chosen as the object of the study. The calculations
are based on the official publications of the Federal Service of State Statistics of Russia.

The shortcomings and other problems in assessing the implementation of the strategies for the
macroregions’ development is also analyzed.

Keywords: Macroregion strategy, regional economy, results of strategy implementation,
statistics.

JEL Classification: O10, O18.

¹ North Caucasian Federal University, ohvb@list.ru
² North Caucasian Federal University
³ Kuban State Agrarian University named after I.T. Trubilin
⁴ Armavir Mechanics Technological Institute (branch) of Kuban State Technological University
⁵ Nevinnomyssk Institute of Economics, Management and Law


1. Introduction

The first strategies for the socio-economic development of the constituent entities of the Russian Federation and its macroregions began to appear in the 2000s, but their structure and development procedure were legislatively approved only in 2014 in the Federal Law "On Strategic Planning in the Russian Federation" of June 28, 2014, No. 172-FZ (2014). Such a procedure for the development of these documents identified shortcomings in the structure and content of the strategies developed earlier but this did not lead to significant revisions to these strategies.

In addition, the implementation of strategic activities was influenced by two crises: the global crisis of 2008 and the currency crisis in Russia (2014-2015), which was reflected in the sharp weakening of the Russian ruble against foreign currencies caused by the rapid decline in world oil prices, as the revenue of the Russian budget largely depended on oil export, as well as the introduction of economic sanctions against Russia in connection with the events in Ukraine (Akopova and Przhedetskaya, 2016; Boschma et al., 2017; Clark and Filimonova, 2017; Sibirskaya et al., 2016; Edwards, 2017; Sysoeva et al., 2017; Kaukin and Miller, 2017; Beglova et al., 2017; Stroeva et al., 2015; 2016).

Strategies for the development of regions created earlier or between these two crises traditionally provide for three scenarios for the dynamics of the economy of the subjects (no change, baseline and most suitable scenarios) but the onset of crisis events is unpredictable, most often negatively affecting the implementation of strategies (Kovalenko et al., 2008; Popkova et al., 2016). This fact is confirmed by the consideration of the practice of implementing the strategy for the development of the North Caucasian Federal District of Russia (hereinafter referred to as the "Strategy"), the southernmost macroregion of the country, which included the most problematic territories. We will assess its implementation through the achievement of the targets identified in three scenarios for the development of the territory.

2. Methodology

Evaluating the implementation of the strategy through targeted indicators for the development of its facility requires the use of the set of methods of analytical statistics and comparison methods (Berezhnaya et al., 2015; Berezhnoy et al., 2015), on the basis of which we can form the following scheme for studying the implementation of the strategies for the development of Russian regions in a down economy:

I: Establishment of the essence and possibilities for the analysis and evaluation of the macroregional development strategy targets:
- selection of target indicators (criteria, targets, etc.) from the text of the strategy;
- comparison of the list of targets with available statistical data;
- evaluation of the feasibility of calculating macroregional development strategy targets in case they are not available in public data.
II: The grouping of the targets for the development strategy of the macroregion in terms of socio-economic nature:
It implies the formation of a typological grouping of target indicators, which is built on the basis of the indicators available in the strategy. The study of regional and sectoral strategies in Russia allows us to identify groups of social and economic indicators, as well as modify and/or expand the grouping based on empirical data.

III: Calculation of the necessary parameters for the development of the macroregional economy in order to achieve the target indicators:
– allocation of the lower and upper boundaries of the target indicators in accordance with the development scenarios established by the strategy;
– calculation of growth rates of empirical values of target indicators.

IV: Comparative analysis of current and target indicators of macroeconomic development includes:
– comparison of targets in the context of development scenarios established by the strategy;
– evaluation of the target values achieved at the time of the analysis;
– an estimation of the probability of achieving the values of the targets set in the development scenarios based on the average growth rates.

3. Results

Conventionally, all indicators used in the strategy as targets that can be achieved by the results of the implementation of all activities can be divided into three major groups:

a) macroeconomic indicators;
b) social indicators;
c) economic indicators.

In the list of socio-economic indicators cited in the strategy, it is necessary to note two main shortcomings that do not allow giving an accurate and full assessment of progress in its implementation:

– the discrepancy in the list of indicators in the context of development scenarios, which is determined by the presence of individual indicators only in 1 or 2 scenarios;
– the lack of statistical information (or the need for additional calculations) for individual indicators.

These shortcomings significantly reduce the level of relevance and objectivity of assessing the degree of implementation of the strategy, its compliance with external conditions and requirements, as well as efficiency and results. In spite of what has been said, a number of indicators are available for external analysis that relate to
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Macroeconomic and social indicators. First of all, let us dwell on macroeconomic criteria, which are intended to reflect the degree of implementation of the strategy in three scenarios (Table 1).

**Table 1.** Macroeconomic indicators of the socio-economic state of the North Caucasian Federal District characterizing the achievement of the objectives of the Strategy in three development scenarios (fragment) (calculated according to (Federal State Statistics Service of the Russian Federation, n.d.; Small and Medium Business in Russia, 2017; Regions of Russia. Socio-Economic Indicators, 2017; Strategy of Social and Economic Development of the North Caucasian Federal District until 2025, 2010)

| Indicators | "No change" scenario | Baseline scenario | Most suitable scenario | Actual level for 2016 (2015) year |
|------------|----------------------|------------------|-----------------------|----------------------------------|
| Region's share in the GDP of the Russian Federation | will increase from 2.1% in 2008 to 2.5% by 2025 | More than 109.7% (average for the Russian Federation) | - | 2.62% |
| GRP growth rate | will be 5.7% per year in the period from 2008 to 2025 | 105.7% | 106.7% | 112.9% |
| GDP per capita | will increase from 79 thousand rubles per person in 2008 to 133 thousand rubles by 2025 | 103.1% | 104.7% | 175.9 thousand rubles at an average growth rate of 112.13% |
| Share of social sectors in the structure of the economy | - | - | - | 22% of the social sectors for 2015, Share of manufacturing, construction and tourism <24% |

One of the "simple" and specific criteria is the share of the region in Russia's gross domestic product (GDP). It reflects the achievements of the strategy only according to the "no change" scenario. From our point of view, its use in the strategic document is incorrect, since, in the Russian statistics, GDP is calculated only for the economy
of the country, while gross regional product (GRP) is used to characterize the volumes of the subjects’ economy. Based on the latter, we will evaluate this indicator of the social and economic development of the North Caucasian Federal District.

In 2008, the share of the North Caucasian Federal District in the GRP of all entities was 2.15%. The share of the North Caucasian Federal District was 2.62% in 2015. The average growth rate of GRP of the North Caucasian Federal District exceeded the average growth rate of GRP of all entities (112.9% vs. 109.7%). Keeping such a pace of development will ensure an increase in the share of the North Caucasian Federal District in the results of economic activity of the subjects of Russia.

According to the most suitable scenario, the maximum annual GRP growth is +7.7% per year in the period 2010-2025, while the average GRP growth rate in 2010-2015 amounted to +13.82%, which reflected a significant outrunning growth in comparison with the planned one.

The value of GRP per capita in 2015 was 175.9 thousand rubles. The average growth rate for the most suitable scenario is 106.18%, while the actual average growth rate is 112.13%. While maintaining the trend that has been established, despite the decline in GRP per capita in 2009 and the crisis of 2014, there is a high probability of achieving targets by 2025.

Let us consider the structure of the region’s economy on the basis of data on the specific weight of major industries in GRP (Table 2). Financial activities, education, healthcare, agriculture, trade, etc. are characterized by an accelerating pace. Despite the declared priority in the strategy of manufacturing industries and construction, their average growth rate is below the average for the macroregion. More than half of the GRP falls on trade, agriculture, construction and public administration. The share of the latter is close to 10% of the regional GRP against the average Russian level of 5.22%.

Table 2. Trends of GRP of the North Caucasian Federal District in the context of types of activities, 2008-2015 (calculated according to (Federal State Statistics Service of the Russian Federation, n.d.; Regions of Russia. Socio-Economic Indicators, 2013).

| Kinds of activity according to OKVED (All-Russian Classifier of Types of Economic Activities) | Average growth rate, 2015 to 2008 | Share of activity in GRP, % | The change in % to the change in the total (total GRP) |
|---|---|---|---|
| Agriculture ... | 113.49 | 15.60 | 16.01 |
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The greatest impact on GRP growth was provided by the trade, agriculture, construction, and public administration sectors. The outstripping growth of trade and agriculture testifies to the "stagnation" of the macroregion in the traditional structure of the economy. Despite the existence of signs for the development of manufacturing (there are large machine-building enterprises and chemical enterprises in the region AO Energomera and OAO Arnest), the trend of this industry remains at the regional average or lower. The share of the so-called "social" branches remains at the level of 22%. It is problematic to estimate the share of GRP created in small and medium-sized businesses since GRP is not represented in official statistics in terms of institutional units and regions.

|                        | GRP | Additional | Total |
|------------------------|-----|------------|-------|
| Fisheries ...          | 115.26 | 0.06 | 0.06 |
| Mining operations      | 103.05 | 0.62 | 0.21 |
| Manufacturing activity | 112.68 | 9.20 | 9.10 |
| Production and distribution of electricity, gas and water | 109.68 | 3.17 | 2.64 |
| Construction           | 111.18 | 11.33 | 10.36 |
| Wholesale and retail trade... | 113.87 | 20.62 | 21.50 |
| Hotels and restaurants | 120.65 | 3.27 | 4.18 |
| Transport and communication | 109.22 | 7.61 | 6.12 |
| Financial activities    | 156.38 | 0.15 | 0.26 |
| Real estate operations ... | 112.26 | 4.42 | 4.28 |
| Public administration... | 112.20 | 9.88 | 9.55 |
| Education               | 115.08 | 5.86 | 6.41 |
| Healthcare ...          | 115.84 | 6.44 | 7.22 |
| Provision of other ... services | 117.93 | 1.74 | 2.08 |
| **Total**               | 112.92 | 100.00 | 100.00 |
Thus, the macroeconomic statistics of the target indicators of the development strategy of the North Caucasian Federal District testify to the extensive growth of the territory's economy and the absence of positive changes in its structure. A number of social indicators (Table 3) are not represented by official statistics or require additional calculations. The creation of new jobs is not reflected directly in the state statistics; however, according to the index of the number of employees employed in the payroll, the number of new jobs in 2015 was 10,069 units, and 10,883 units in 2016. Based on the assumption that no less than 10,000 new jobs were (will be) created each year until 2016 and thereafter, it can be concluded that the total number of new jobs will be no more than 170,000 by 2025. Given that a few major projects planned by the Strategy for the period until 2013 were not implemented, it is logical to assume that the plan for this indicator will not be fulfilled.

Provision of the population with landline telephone communications is characterized by a decrease in the number of telephone sets due to the massive population transition to mobile communications. The calculation shows that the value of the indicator is much lower than the planned one on average in the region. In addition, the strategic focus on the growth of landline telephone communications differs from the trends in the development of communications and the growth in the volume of information transfer by mobile operators.

The number of employed in medium and small enterprises in 2016 amounted to 472.3 thousand people but the data are only in the context of two dates: 2015 and 2016. Given the instability of the economic environment, the calculated rate of growth – 114.9% – may not persist in subsequent years. The share of employed in small and medium-sized businesses at the same time was 12.5% of the total number of employees compared to 23% by 2025 in the Strategy. It is problematic to assess the degree of elimination of the deficit of places in preschool institutions. In the North Caucasian Federal District, the provision of places in preschool institutions is 392 units in 2016, i.e. there are 392 places for 1,000 children. The growth rate of the indicator in 2011-2016 years is 102.18%, which will result in the number of places of 771 per 1,000 children in 2025 and will not solve the deficit problem.

The growth of the average nominal accrued wages exceeds the planned indicators, official inflation and reflects the real growth of the population's incomes. The unemployment rate in 2016 was 11%. During the period of analysis, the unemployment rate rose only in 2010 and gradually declined in subsequent years. The estimated growth rate is 95.65%, which corresponds to the baseline scenario of development. The share of the population with cash incomes below the subsistence minimum in the total population of the North Caucasian Federal District was calculated on the basis of data for each entity in the macroregion and it was 16% as of the end of 2016 which was slightly different from the baseline indicator. It should be noted that the North Caucasian Federal District includes a number of entities in which there is a high natural increase in population but the increase in the number of
residents with low incomes is 1 percentage point higher than the growth in the total population, which negatively characterizes the dynamics of the indicator in question.

Table 3. Social indicators of the development of the North Caucasian Federal District characterizing the achievement of the objectives of the Strategy in three development scenarios (fragment) (calculated according to [Federal State Statistics Service of the Russian Federation, n.d.; Small and Medium Business in Russia, 2017; Regions of Russia. Socio-Economic Indicators, 2017; Strategy of Social and Economic Development of the North Caucasian Federal District until 2025, 2010])

| Indicators | "No change" scenario | Baseline scenario | Most suitable scenario | Actual level for 2016/2015 year |
|------------|----------------------|------------------|----------------------|--------------------------------|
|            | Targeted indicator   | The required average annual growth rate | Targeted indicator   | The required average annual growth rate | Targeted indicator   | The required average annual growth rate |                                      |
| Unemployment rate | will decrease from 16 to 14% | 99.2% | ... from 16 to 9% | 96.67% | ... from 16 to 5% | 93.39% | The level is 11% of 2016; The average growth rate is 95.65% |
| The proportion of the population with cash incomes below the subsistence minimum in the total population of the North Caucasian Federal District | it will decrease from 16.5% to 12.6% in 2025 | - | ... from 16.5 to 10.9% | - | ... from 16.5 to 9.2% | - | 16.00% in 2016; the growth rate of the population with incomes below the subsistence minimum is 102.4% per year |
| Housing per capita | - | - | will grow from 17.1 to 20 square meters per capita | 100.93% | ... from 17.1 to 24.4 square meters per capita | 102.11% | 20.7 square meters in 2016, the average growth rate is 102.49% |

The positive dynamics are demonstrated by the provision of housing for the population. The growth rate and the level of the indicator in 2016 exceeded the optimistic development scenarios. This confirms the dynamics of the construction in the GRP of the macroregion discussed above. The Strategy uses four health targets for the population. This orientation of basic and most suitable scenarios goes against the tasks of reducing social sectors in GRP. The basic scenario corresponds only to the provision of the population with medium-grade medical personnel.
The considered indicators of the social sphere demonstrate its unsustainable development in the North Caucasian Federal District. In addition, the discrepancy among certain indicators of official statistical metrics does not allow for an objective assessment of the development of the North Caucasian Federal District and compliance with this development of the Strategy.

Next, let us turn to the analysis of the trends of economic indicators, which included industrial production, transport infrastructure and the financial sector (Table 4). The index of industrial production in the region is unstable and amounted to 106.8% in 2016, which was below the values of the inertial scenario by 0.5 percentage points. On average, the production index for the period of 2008-2016 was 104.3%, while the decline in the index in 2014 should be considered for almost 100%. In general, the trend of industrial development is very low, which confirms the trends in the changes in GRP structure considered earlier. An increase in the number of small and medium-sized enterprises is foreseen only for basic and the most suitable scenarios. In 2016, the number of small and medium-sized enterprises in the North Caucasian Federal District was 5.58 units per 1,000 people. The planned targets set by the Strategy required an annual increase of +9.93%, but the average annual growth was only 6.66% for the period of 2008-2016.

Table 4. Economic indicators of the socio-economic state of the North Caucasian Federal District characterizing the achievement of the objectives of the Strategy in three development scenarios (fragment) (calculated according to (Federal State Statistics Service of the Russian Federation, n.d.; Small and Medium Business in Russia, 2017; Regions of Russia. Socio-Economic Indicators, 2017; Strategy of Social and Economic Development of the North Caucasian Federal District until 2025, 2010))

| Indicators                  | "No change" scenario | Baseline scenario | Most suitable scenario | Actual level for 2016/2015 year |
|-----------------------------|----------------------|-------------------|------------------------|-------------------------------|
| Industrial production growth rate | will be 7.3% per year in the period from 2008 to 2025 | 107.3% | 108.7% | 110.1% | 106.8% in 2016 104.3% on average for 2008-2016 |

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The transport industry is also one of the leading industries in the macroregion, and one of the problem areas. The share of transport in the GRP of the North Caucasian Federal District is 7.61%. Despite the presence of large Mineralnye Vody airport and the transit potential of the North Caucasian republics, several regional centers (Stavropol, in particular) are dead ends of highways and railways. In addition, the complex socio-political situation in the Caucasus and the weather conditions in winter determine the existence of significant problems in using the region as a transit route in the Caucasus. The density index of highways in the North Caucasus has always been high. For several years, the North Caucasian Federal District has been ranked first among the federal districts by the indicator level. In 2016, it was in the North Caucasian Federal District significantly higher than the plans for the "no change" scenario (394 against 292.6 km of tracks per 1,000 km² of territory).

The revenues of the consolidated budget per capita grew at a high rate: 108.79% average growth rate in 2008-2016. This indicator at the end of the analysis period was 16.84 thousand rubles per capita. While maintaining the existing rates in increasing revenues of the consolidated budgets of the North Caucasian Federal District and the population, the indicator has every chance to reach the planned level by 2025. Based on the results of the analysis, it is necessary to note the traditionality of the sectoral structure of the economy of the macroregion, the absence of significant positive dynamics in the development of manufacturing industries, the lack of social security in several indicators, and the lag in industrial growth.

Regular reports on the implementation of the state program of the Russian Federation "Development of the North Caucasian Federal District until 2025" reflect overestimated results for individual indicators, as well as the results for those criteria that are not available in open statistics. The analysis does not allow us to speak about...
the objectivity of the assessments presented, and the quality of the implementation of the Strategy.

4. Discussion

Strategic planning at the mesolevel – regional and sectoral – is one of the main functions of managing the Russian economy. The bases for the regionalization of the country's territory formulated back in the Soviet times traditionally served as the basis for planning the national economy. The transition to the modern territorial and sectoral structure of the Russian economy has given rise to a number of problems; an attempt to solve them has been implemented in the developed strategies for the socio-economic development of the subjects of the federation and the macroregions (federal districts).

Several modern development strategies (the strategy of socio-economic development of the North Caucasian Federal District, in particular) have been developed before the entry into force of the law on strategic planning (2014) and do not meet its requirements. Their fragmentary adjustment in most cases is aimed at underestimation of the targets, which allows fulfilling plans but does not provide an opportunity to improve the economy's efficiency.

5. Conclusion

The analysis of the implementation of the Strategy for the Social and Economic Development of the North Caucasian Federal District has allowed us to formulate the following conclusions:

– the set of used targets reflecting the degree of achievement of the Strategy's objectives are not transparent; open information in official statistical sources concerning these indicators is not available;
– the reachability of target indicators is uneven, for some of them the strategic plan was topped for 9-10 years before the end of the strategy implementation period, while in others the dynamics of changes did not allow one to unambiguously characterize the reachability of the planned level by 2025;
– in the North Caucasian Federal District, during the analyzed period (2008-2016), there have been no qualitative changes in the sectoral structure of the economy, which are identified as goals in the Strategy;
– the implementation of social targets in the macroregion is uneven, there are no open data on many targets; certain criteria contradict the development of the corresponding sphere of the economy;
– the further revision of the current Strategy and the development of the strategies for the development of the North Caucasian Federal District for the period beyond 2025 requires the adjustment of the targets to their transparency, accuracy, and adequacy of the description of the current economic situation.
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