## Food security in Rostov region: strategic management and planning in agroindustrial complex through the prism of foresight analysis

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In modern conditions, countries are finding it progressively difficult to provide their populations with quality and affordable food, this may be due to many factors, particularly in difficult political circumstances, climate change, economic transformation, etc. Many international organization in particular the Food and Agriculture Organization of the United Nations (FAO), over the past few years have recommended that governments of many countries adhere to a unified system of agricultural development so that developing countries can properly combat the problems of hunger [5].

In the countries of the former Soviet Union, in particular, in the Russian Federation, food security issues are considered strategic in consideration, which is observed in the practice of the agricultural reforms carried out in the country. One of the most key agro-industrial regions of Russia is considered to be the Rostov region. According to the conducted research, in the all-Russian production of agricultural products, this region is the leader in such areas as grain crops and sunflower, export of agro-industrial products, canned vegetables for short-term storage, refined vegetable oil, milk, beef, and eggs [4]. According to the Ministry of Agriculture of the Russian Federation, the index of agricultural production in the Rostov region is 106.5%, which demonstrates the self-sufficiency of the region. This sector of the economy is not only highly productive, it also employs about 40% of the region's population, which makes this industry strategically important for development [6].

In this study, the main components of the agricultural sector of Rostov region in determining food security through the prism of strategic management and planning with the use of foresight technologies (Scenario method and SWOT analysis) were studied. In the course of the study, the main trends in the development of the agro-industrial complex of the region were identified, which will shape the external appearance of this industry. As the key players in the foresight analysis of the agro-industrial complex of the Rostov region, 4 groups were identified: Ministry of Agriculture and Food of Rostov region, Scientific community of Rostov region, Large agro-industrial companies of Rostov region, Associations of small and medium agricultural commodity producers of Rostov region [1, 149].

The purpose of this research is to formulate recommendations for the implementation of future projects of strategic management and planning in the agro-industrial complex of the Rostov region. The use of foresight technologies in determining the essence of food security in the region with the possibility of identifying new development trends for the country is noted as an innovation.

This thesis focuses on identifying the weaknesses and strengths of possible scenarios for the development of an agro-industrial complex in the region. We can highlight a few of them as an example. Scenario-1 "Intensive development of technologies in agriculture", which highlights both potential risks (high costs for the introduction of new technologies, retraining of employees, possible environmental risks) and potential opportunities (increased productivity, new level of food security, increased competitiveness of the agro-industrial complex of the region). Scenario-2 "Environmental unsustainability", where we can also distinguish risks (reduction of yields of major crops, threat to environmental sustainability) and opportunities (introduction of sustainable agricultural practices, use of alternative energy sources for growing agricultural products.

Based on the conducted research, new possible ways of developing the agro-industrial complex of Rostov region were identified, which can change the views of understanding the

food security of the region. The results of this study will serve as a basis for further studies in the field of agriculture using foresight technologies.

## References

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