Socio-economic Model of Regional Food Independence

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Abstract: This article builds a model of regional self-sufficiency based on an analysis of the socio-economic situation in the provision of food to the population which developed in the Omsk region in the 70-80s of the XX century. It considers the components of this model based on the results of the activities of various forms of agricultural production. The article also considers the ratio of personal subsidiary plots of rural residents, subsidiary plots at industrial enterprises, gardening partnerships in the region. The model analysis made it possible to draw the following conclusion: the solution of food independence in certain regions of Soviet Russia during the period of prevalence of extensive forms of agriculture was ensured by a combination of administrative and economic methods based on the stable combinations of forms of agricultural production that developed in these territories which served as a guarantor of self-sufficiency of the population with food.

1 INTRODUCTION

The state agricultural policy in accordance with Federal Law No. 264 is aimed at sustainable development of agriculture and rural areas. At the same time, the Decree of the President of the Russian Federation No. 29 of January 21, 2020, establishes the directions of the state agrarian policy which should ensure the food security of the state, understood as ensuring food independence. The key indicator of food independence is the ability of the state to self-sufficiency in the main types of domestic agricultural products, raw materials and foodstuffs. One of the directions of ensuring food independence, established in the Decree, is the improvement of mechanisms for regulating the market of agricultural products, which can be developed based on the analysis of models of self-sufficiency of the country's regions, implemented in the 70s and 80s. of the XX century.

The countries with economies in transition which include the Russian state have their own specifics in resolving the food issue. Researchers name the weak influence of the federal center on the solution of agricultural problems as the fundamental factors influencing the decision of food independence. As a result of this attitude, the food problem of the Russian state is unnecessarily regionalized. In addition, the tendency towards administrative methods of reforming in the agrarian sector persists (Zinchenko, 2004), the natural factor is gaining particular relevance against the background of global environmental problems (Leushkina & Popolzukhina, 2011).

The regional economic systems that have developed in the recent historical period as a result of combined state measures continue to retain their significance as an example of solving the problem of food security at the meso-level.

2 MATERIALS AND METHODS

Researchers capture food security by measuring it at macro and meso levels. The food security of civilization is characterized by the level of grain reserves and the amount of its production per capita.

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The average per capita production of grain crops is constantly growing: from 305 kg in the 70s to 430 kg in the 90s of the XX century. In the Russian state this indicator was at the level of 450 kg per capita per year (Sokolin, 2004).

At the meso-level, food security is determined by a number of correlated indicators: the level of imported food to the volume of own agricultural production; the share of consumption of imported food by the population; and the correlation of the minimum per capita income and food prices (Korolev, Zhukovskaya & Chertko, 2007). The mesoeconomic level allows tracing horizontal links: models of self-sufficiency of the population with food in the regions of Soviet Russia and their features (Mayevsky, 2018).

The formation of reliable conditions for food self-sufficiency is a guaranteed basis for food security and sustainability of the country's economic development model. Domestic production of basic food products in each individual region will eliminate the possibility of political pressure, create the necessary conditions for the constant supply of food to its own population during periods of crisis in the development of the economy. These parameters of food security will allow assessing the state of agricultural production in general and food consumption in the country in specific historical conditions and in a particular region. In addition, state food security implies the availability of food to all segments of the population (Tugolukova, 2016).

According to Gumerov (2003), food autonomy implies a stage in the development of agricultural and food production that can ensure a continuous supply of food for the country's population, regardless of the possible options for the global market situation and foreign policy changes.

Food independence cannot exist for a long time due to the import of imported food products, as it implies curtailment of domestic production and damage to domestic producers. Exceeding the 20% share of food imports in the country means that the state has lost its food independence and urgent measures are required to ensure its food independence (Gumerov, 2003).

The authors Gordeev & Chernyaev (2001), pointing out the reasons for the aggravation of the food problem, call the main one - a drop in the growth of grain production, which satisfies a significant share of the population's needs for food and serves as the basis for the production of animal feed. As an example, the following data are given: grain production increased by more than 2% annually in the world for 60 years (from 1950 to 1990) and during the 1990-1999s– only by 1%. At the same time, the growth of the world's population during the last 10 years of the XX century exceeded 1.6% (Gordeev, 2001). The world food problem is reflected in the regional one: both from the point of view of stating risks, and from the point of view of finding ways to solve the problem.

The concept of economic security, which considers the aggregate socio-economic and political state conditions that ensure the independence of the national economy at all levels, including at the regional level, allows studying the Omsk regional model of agricultural development as an integral part of the model of the national economy (Perezhogina, 2012). The historical-genetic method provides a reproduction of a relatively real picture and the content of events and facts that took place in the agricultural sector in the 70s-80s. of the XX century. Historical social reality consists of events, processes and phenomena, i.e. interacting objects, in their totality, representing a single whole (Kovalenko, 1987).

3 RESULTS AND DISCUSSION

The mechanism of organizing the management of the agricultural sector in the 70s-80s. of XX century assigned responsibility to the regional authorities for the collective farms and state farms of mandatory production planning tasks. The systematic development of collective farms and state farms was not within the competence of officials. Without regard to the increase in costs in agriculture, there was a gradual decline in the growth rate of agricultural output (Fedorova & Chernyavskaya, 2005).

The low productivity of the agricultural sector of the economy in Soviet Russia created a situation of the impossibility of supplying the population of all regions with the necessary food, and also contributed to an increase in food imports (Table 1).

Table 1: Share of imported agricultural products in the public system of consumption of basic agricultural products in Russia, %.

Yrs.	1970	1980	1985	1988
Grain (except cereals)	1.2	13.7	20.3	15.8
Sugar	25.4	31.4	26.2	24.5
Meat and meat products	2.3	8.3	7.4	5.3
Vegetable oil	2.6	12.4	25.3	10.2

At the same time, agricultural raw materials and products that could be produced and processed in their own agro-industrial complex were imported (Kuznetsova, 1991)

The search for ways to solve the problem by attracting even more funds didn't pan out. More than 200 billion rubles were allocated to agriculture in the 70s of the XX century**.** There was no growth in labor productivity and agricultural production (Razuvaeva, 1989).

The Soviet system, possessing command and administrative features of the leadership, led to the strong horizontal ties in the functioning of the All-Union Fund of Agricultural Products. The major task was the centralized concentration of agricultural products in state hands. The process of collecting, preserving, processing and bringing agricultural raw materials and food to the consumer was deprived of spontaneity. As a result, the interests of neither producers nor consumers could be taken into account. By the end of the 80s. of the XX century, the centralized distribution order acquired a paradoxical practice: food products concentrated in the capital and regional centers were spontaneously bought up by the population coming from numerous provinces. The material costs were obvious. Products grown in personal subsidiary plots were used mainly locally, by the villagers themselves (Kuznetsova, 1991).

During this period, there were different models of self-sufficiency of the country's residents with food, which were formed in the regions of the country. Characteristics of the Omsk model that emerged in the second half of the 70s. of the XX century, provides an opportunity to trace the inconsistency of its functioning, successes and shortcomings, results, as well as its elements in the modern agro-industrial complex of the region on a single example.

The inconsistency of the self-sufficiency system is primarily associated with regional production imbalances and natural and climatic conditions that affect the limitation or vice versa of the package of food produced. On the other hand, a condition for employment of both rural and urban populations and an increase in their well-being was created in the long term (Safin, 2009).

The Omsk model of self-sufficiency in food for the population was based on the simultaneous development of personal subsidiary plots (private household plots), household plots (subsidiary plots) of enterprises, and gardening associations of urban residents. Personal subsidiary farms of rural workers were considered as the main supplier of vegetable, meat, and dairy food for the residents of the region. Subsidiary farming of enterprises determined the expansion of the range and the reduction in the food cost for workers. Gardening partnerships also solved humanitarian functions: surplus vegetables were transferred to social institutions.

A combination of administrative and economic regulation in the self-sufficiency system was found in the region, a favorable structure of land holdings had a positive effect (the presence of a sufficient number of sown areas for grain and fodder crops was higher in percentage terms than in the country, for example, for grain by 4.6%). As a result of this activity, meat consumption in the Omsk region was 5.6% higher (Safin, 2009).

The food problem was also solved by creating household plots at the enterprises. Their contribution to the development of the food supply of the regions was insignificant, and the cost of production was high. For example, in 1981, the household plots of the enterprises of the Russian Soviet Federative Socialist Republic produced an average of 1.4 kg of meat per urban resident. There was some difference by region: in the Altai Territory - 1.33 kg, in the Tyumen Region - 3.4 kg, in the Tomsk Region - 1.5 kg, in the Novosibirsk Region - 1.27 kg, in the Kemerovo Region - 0.7 kg, in the Omsk Region. - 2.98 kg of meat (Orlov, 2015).

Omsk region has created 151 subsidiary farms. And although their food production was reflected only in improving the diversity and quality of food for employees of enterprises – this fact should not be underestimated. Gardening associations specialized in the cultivation of vegetables and fruits, and 15% of the urban dwellers were engaged in this production.

The current model of self-sufficiency of the population with food in the regions, including in the Omsk region, remains relevant at the present time. The Omsk Region has a developed agro-industrial complex, which ranks second among Siberian regions and is in the top ten among the leading agricultural regions of the Russian Federation (Aleshchenko & Kryukova, 2017).

In the post-Soviet period in the Omsk region there were: 280 joint-stock companies, 41 agricultural cooperatives, 23 state organizations, 31 collective farms continued to work, 7272 peasant farms were created. The agricultural sector was in the most difficult situation during the first post-Soviet decade. The removal of the state from the role of the main regulator of the country's economic processes, the price dispute between agricultural and industrial goods and services in the country were the main reasons for this phenomenon (Borovskikh, 2004).

As the researcher Rudik (2021) notes: the basis for the provision of the food market of the Omsk region

is currently mainly made up of products of its own agricultural production.

4 CONCLUSIONS

The Omsk model of self-sufficiency of the population with food was formed on a contradictory combination of administrative and economic methods of its organization; had both extensive forms of farming, and laid down humanistic approaches to solving the issue of a fairly good balanced diet for the entire population of the region. A feature of the Omsk model was the combination of administrative and economic methods of its organization.

REFERENCES

Aleschenko, V. V., Kryukova, O. N., 2017. To characteriz e the current stage of development of the agro-industrial complex of the Omsk region. *In Bulletin of Omsk SAU*. 1 (25). pp. 140-149.

Borovskikh, N.V., (2004). Pricing in the agricultural food market.

Fedorova, M. I., Chernyavskaya, N. A., 2005. Agricultural policy of modern Russia XX century.

Gordeev, A., Chernyakov, B., 2001. Some aspects of the world's food problem. *In Economic issues.* 6. pp. 50-59.

Gumerov, R., (2003). To the development of methodolog ical and theoretical problems of the study of food security in Russia. *In Russian Economic J.* 7. pp. 9-26.

Korolev, I. S., Zhukovskaya, V. M., Chertko, N. T., 2007. Import and food security in Russia. *In The world economy and international relations.* 11. pp. 13-20.

Kuznetsova, T. E., 1991. Self-sufficiency of the population with food in the region.

Leushkina, V.V., Popolzukhina, N. A., 2011. Food security in the Omsk region. *In Bulletin of Omsk State Agrarian University.* 2. pp. 70-72.

Maevsky, V. I., 2018. Meso-level and hierarchical structure of the economy. *In J. of Institutional Research*. 10(3). pp. 18-29.

Orlov, D. S., 2015. Agriculture of the Omsk region in the second half of the 60s – the first half of the 80s: the search for a sustainable development model (historical aspect). *In Omsk Scientific Bulletin*. 2(136). pp. 21-24.

Perezhogina, O. N., 2011. Methodological approaches to the study of problems of economic security. *In Scientific notes of the Kazan State Academy of Veterin ary Medicine named after Bauman N.E.* 211. pp. 442-447.

Razuvaeva, N. N., 1989. Pages of the history of Soviet society. People, problems, facts.

Rudik, A. S., 2021. Food security of the Omsk region: theoretical foundations and methods of regulation.

Safin, U. Z., 2009. Features of food self-sufficiency in the regions of Russia. *In Bulletin of the Academy of Security of the Ministry of Internal Affairs of Russia*. 5. pp. 19-27.

Sokolin, V. L., 2003. Information about the socio-economic situation in Russia.

Tugolukova, A. Yu., 2016. Russia's food security in the context of the West's Sanctions policy: priorities and risks. *In International Scientific Research.* 4(29). pp. 306-310.

Zinchenko, A. P., 2004. *In Agrarian policy.*