



Prospects of the Agro-industrial Complex Development: Economic Diversification, Business Development, Mono-industry Town Strengthening and Expansion

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ABSTRACT

Great dependence on competitiveness of one city-forming enterprise or several enterprises which conduct their activity within the uniform production and technological process, the lack of financial and other resources for solution of social and economic problems in an emergency present a defining feature of mono-industry towns. Exactly for this reason some mono-industry towns connected with enterprises of raw and investment complexes, and mechanical engineering were greatly influenced by consequences of the world economic crisis in 2015. The problem concerning mono-industry towns of Russia is among the most urgent complex with great social importance. Its solution based on the general principles for the whole group of mono-industry towns (economic diversification, small business development, inter-city and inter-municipal interrelation strengthening and expansion, and so on, at the same time has a special individual character for each population. For the purpose of mono-industry town economic diversification it is necessary to increase a share of small and medium enterprises of the agro-industrial complex. Activation of development of the transport, power and information infrastructure for effective exploitation of natural resources, coordinated and accelerated development of the whole district, realization of the transit potential and creation of the conditions for full and large-scale interaction of the economic region of east and western parts of the Russian Federation.

Keywords: Mono-industry Town, Agro-industrial Complex, Personal Subsidiary Farm, Food Security

JEL Classifications: Q18, R11, R58

1. INTRODUCTION

The agro-industrial complex development (AIC) and improvement of its sectoral and territorial structure accommodate more efficient location of economic activity, complex and effective application of resources, improvement of the final results of its functioning, food security enforcement for the country.

In developed countries many workers and the fixed and current capital of the gross domestic product. Increased standard of living and food security enforcement in many respects depend on the AIC scale, faultlessness of its structure and functioning efficiency.

The goal of the paper is to study perspective technologies of the AIC development in Russia, its main forms of management, and also to consider the models of realization of mono-industry towns in the country, to defer to advanced countries' experience.

2. MATERIALS AND RESEARCH METHODS

Monographs of domestic authors, research publications, researchers' papers in the field of agribusiness concerning AIC modernization present the methodological and theoretical base. Works of such Russian and foreign researchers as Altupov (Altupov, 1996), Krashennikov, Morozov, Petrenko (Petrenko, 1999), Romanenko, Kholod (Kholod, 1996), Khrushchev

(Khrushchev, 1999), and others formed the research basis in the field rural territory development stability.

3. DISCUSSION

Though Russia is quite well provided with agriculturally used areas, but their sizes constantly decrease that is connected with the withdrawal of lands for the industrial, transport, housing-and-municipal construction. The size of farm and agricultural land and per capita gradually decreases (that is connected with the population upsurge). Therefore, the main direction of further development of agriculture is its full intensification.

There are two ways for increased production of agricultural goods. One of them is extensive, namely, due to expansion of cultivated areas, the farm stock growth without updating the material basis. The second one is intensive providing the increased output per land unit by using more effective remedies of production and achievements of the STP. The opportunities of extensive development are close to be exhausted, therefore, intensification (increased material and labor inputs per land unit to increase the agricultural production output from each hectare, improved quality, increased labor productivity, decreased prime cost of per unit of goods) is the most effective and unique way of production development. The main directions of intensification such as complex mechanization, agriculture chemization, land reclamation, increased power availability per worker in agriculture, improved production technologies in use, intensification is carried out on the basis of deeper specialization of agricultural production, further development of agro-industrial integration.

4. AIC AS A SET OF INDUSTRIES OF RUSSIAN ECONOMY

Since the collapse of the USSR in Russia reformation and improvement of agricultural enterprises are carried out, the old system underwent considerable changes. It was not still succeeded to create a new system, therefore, it is necessary to correct a legislative basis to improve affairs in this sphere.

There was stage-by-stage transformation of the agrarian branch of the country. There were changes connected with reorganization of collective farms and state farms, and also privatization of enterprises of this branch started. The land reform as a result of which our country saw formation of new land relations is conducted. Private land tenure is chosen as the base. Then there was a change of the system of purchase and sale of agricultural products - private enterprises of sale. As a result, there were cardinal new channels of realization such as wholesale markets and exchange houses occurred. Thus, the financial and loan system urged to correspond to new parameters starts being formed. Exactly at that time many people have been informed about price grants (Oleinikova et al., 2016), monetary loans, voluntary insurance of different types of activity for the first time. In the West, in developed countries, this system was successful for the long period, and our country followed the Soviet standards and rules. From this point Russia was closely engaged in transformation

of market economy. Today it is indissolubly coherent with competitiveness of the country in the international market.

Today the situation in the AIC is not ideal and demand great adjustment and innovative approaches. Thanks to help and intervention of the state it is possible to find effective levers for stabilization and development of this system.

The AIC is a set of industries of national economy which includes agriculture and industries connected with agricultural production, carrying out transportation, storage, and processing of agricultural products, delivery to their user, providing agriculture with equipment, chemicals and fertilizers, serving agricultural production.

Other authors determine the AIC as a branch of economy connected with the specialization of labor (Borodacheva et al., 2016) that provide, according to the demand of consumer society, industrial consumer goods from agricultural raw materials, and also food reproduction.

The AIC structure includes sub-complexes:

1. Production and realization of industrial consumer goods from agricultural raw materials (chemicals, pesticides, fertilizers, and so on);
2. Production and realization of food forming the food complex.

The AIC includes the following fields of activity:

1. Agriculture is a center of the AIC including:
 - Plant growing;
 - Animal husbandry;
 - Farms;
 - PSP and so forth.
2. Industries and services providing agriculture with production means and material resources:
 - Tractor and agricultural mechanical engineering;
 - Production of mineral fertilizers, chemicals, and so on.
3. Industries which are engaged in processing of agricultural raw materials:
 - Food industry;
 - Industries on primary operation of raw materials for light industry.
4. The infrastructure sphere - productions which are engaged in development of agricultural raw materials, transportation, storage, trade with consumer goods, agriculture training, construction in industries of the AIC.

In the modern economic conditions in Russia the fifth field of activity of the AIC is formed: Industries of the social, service, scientific, production, information and other infrastructure which do not produce the product directly, but are necessary for its manufacture and productive effective functioning of the AIC.

The most perspective model of the AIC includes some spheres interconnected among themselves and forming an effective complex - Figure 1.

Speaking about our country, in Russia the AIC development is as follows. The AIC in Russia is a complex of industries which

have close economic and production interrelation specializing on production of agricultural goods, its processing and storage, and also providing agriculture and processing industry with production means.

Agriculture, in the structure of the AIC of Russia, perhaps, is the most important element of the system (Krashennikova, 1996). Agriculture produces more than 48% of the AIC production volume, possesses 68% of business fixed assets of the complex. 67% of employees working in production industries are engaged in the complex. In developed countries to the third sphere of the AIC has the main role in production of the final product. For example, in the USA 73% of the AIC output is accounted for by a share of process and selling industries, agriculture gives only 13% (Electronic Library).

In developed countries the AIC is, as a rule, huge commodity farms (plantations, farms, and so on) which use modern production means at all stages of economic activity - from the field to storage, processing and packaging of the final product ready for consumption at most. Density of farms of the AIC in developed countries is determined by considerable capital investments per area unit (in Japan, Belgium, the Netherlands - to 10000 dollars for hectare), and also broad application of achievements of science (biology) and technology (Encyclopedia of Economics).

Agriculture is a specific sphere of production - the plot of land - key production means (Shkurkin et al., 2016). The plot of land unlike other production means is not the product of human labor, its sizes cannot be increased. For Russia it is the key factor, there is no lack of this resource in the country, therefore, this production can be intensively developed. In agriculture the plot of land does not lose its qualities in right use, but even improves them, while all other production means gradually become outdated morally and physically and are replaced with others. The plot of land, being production means, is both means of labor and the object of labor.

At the moment in our country there is a top list of the largest AIC of the country to analyze their efficiency (Saenko et al., 2016). The main criterion of assessment is the amount of profit on sales. As an example the authors present in Table 1 the ten largest companies.

For the first time the top list of agrogiant companies was made according to the data of 2001. Comparison of its indicators with today's top list testifies that the system of agribusiness holding companies is in the process of formation (Silnov, 2015). Some of the largest agribusiness holding companies created at the first stage either closed their activity or reduced its volumes. The previous

year in Russia accounted 413 state and municipal agribusiness holding companies and 318 non-state ones. They were 3491 large and medium agro-industrial companies which presented 26.5% of products of large and average AIC. AIC entering into agribusiness holding companies with foreign head companies are more effective. In these AIC the profitability level in 2006 was 25.9% that was more than twice higher than the average on large and medium AIC. State agribusiness holding companies are less effective. Average profitability of the AIC entering into these agribusiness holding companies is 4%. Municipal agribusiness holding companies are unprofitable (-12.5%).

5. MONO-INDUSTRY TOWNS AS A PLATFORM OF THE AIC ACTIVITY REALIZATION

In practice of Russia, as a rule, a mono-industry town is an "industrial city," but even more often it is possible to meet a mono-industry town with an agricultural bias. Such orientation gains relevance in the modern developed realities: General world intensity, increased prices for import goods, import substitution-mindedness, embargo, imposition of sanctions to certain types of goods, the growth of exchange rate, and so on.

A mono-industry town designates close connection between the existence of the residential place and the large enterprise (Kunelbayev et al., 2016). Thus, the plant, factory or AIC are called city-forming. The author characterizes a mono-industry town as the residential place where over 25% of population work at one enterprise and many products of this enterprise is related to one branch.

For the first time mono-industry towns in Russia were formed during the reign of Peter the Great. They represented productions of the sphere of cloth manufactory and also ironworks plants. Then, in the 19th century mono-industry towns represented residential places which primary activity was light and coal industry. The largest mono-industry towns of the 30s of the 20th century were Novokuznetsk, Apatity. They are well-known coal mines with coal production hence. In post-war years' enterprises became city-forming near nuclear and power plants, such as Kirovsk, Novomichurinsk, and others (Morozova, 2001; Sergeevich and Vladimirovich, 2015). At the end of the 1980 there were over 400 mono-industry towns. A significant part of these residential places was built near the enterprises of woodworking and forest, food industry, and also mechanical engineering.

Figure 1: Spheres of the agro-industrial complex model

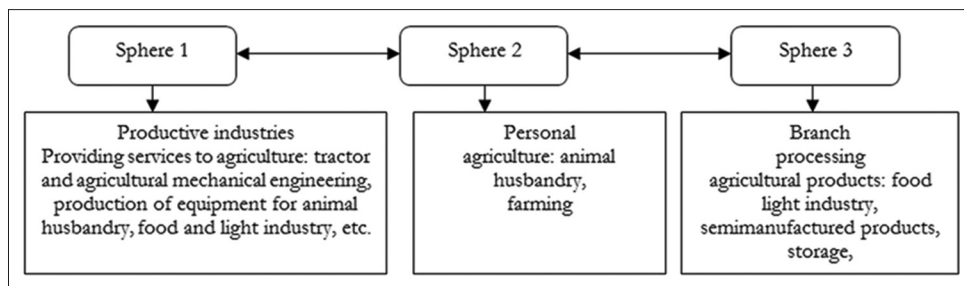


Table 1: Top list of the ten largest companies of the agro-industrial complex of Russia following the results of 2014 (Online Expert, 2014)

Place	Company	Regions	Specialization	Revenue in 2014 (million rubles)	Revenue in 2013 (million rubles)	Change in 2014/2013 (%)	Net profit in 2014 (million rubles)
1	AIH Mirotorg	Belgorod, Bryansk, Kursk Regions	Animal husbandry, plant growing and processing	74,058	53,683.0	138.0	16,396
2	JSC Cherkizovo Group	Lipetsk, Tambov, Penza, and other Regions	Pig breeding and agriculture: Poultry industry and processing	68,700	52,682.7	130.4	13,318
3	JSC Efko	Belgorod, Voronezh Region, Krasnodar Krai, etc.	Production of vegetable refined butter and fats	61,391	50,212.0	122.3	857
4	JSC Rusagro Group of Companies	Tambov, Belgorod, Voronezh, and other Regions	Agriculture, food production	59,112	36,490.0	162.0	20,177
5	JSC Agro-Belgorie Group of Companies	Belgorod Region	Animal husbandry in combination with plant growing	57,600	41,100.0	140.1	5990
6	JSC Danon Rossiya	-	Production of dairy products	40904.9	40,127.0	101.9	2247.0
7	JSC Oil Extraction Plant Yug Rusi	Rostov, Voronezh, Volgograd Regions	Production of crude vegetable butter	37644.1	50,070.5	75.2	1442.7
8	Prodimeks Group of Companies	Belgorod Region, Krasnodar Krai, Bashkortostan, Oryol Regions, and others	Production of sugar	35201.2	21,890.0	160.8	66.3
9	Agro-industrial group Prodo	Central, Southern, Siberian and Ural Federal Districts of Russia	Poultry industry and pig breeding, processing	33,600	31,100.0	108.0	*
10	JSC Prioskolye	Belgorod Region	Agricultural bird breeding	32,635	27,079.0	120.5	4877.5

*The data of companies are hidden for confidentiality

In the 90s of the 20th century most of mono-industry towns were in complicated situation. It was preceded by the following factors:

1. Decreased level of production;
2. Breaking ties of planned economy;
3. Inability of principal products to be competitive in the market;
4. A large number of social objects on balance of enterprises.

The mono-industry town development in Russia can promote development of mechanisms for overcoming difficult situations (Barmuta et al., 2015). An important aspect for the mono-industry town development is employees' location in the territory of the residential place where they get job. Such mechanism is market. But in perspective realization of this mechanism there is a number of difficulties, such as the shortage of housing and the lack of free workplaces in the labor market. The insufficient level of the personnel mobility is also connected with huge spaces of our country. A large number of workers at the pension qualification age who cannot go for training and recertification to other districts and pass adaptation to new conditions present one more limiting factor.

The most acceptable solutions of difficulties of mono-industry towns are: (1) Large-scale support of the state; (2) evolution of city functions. In the first case a platform of enterprises which do not operate can be used for development of new business - be reorganized. In this case, the state can fix a number of privileges for new enterprises which will turn out products. In the second case, a mono-industry town will lose its primary functions. The enterprise will be subject to closure, and the residential place will become the center of the agricultural region on the basis which will be the basis for the AIC development.

According to data of the Russian newspaper, mono-industry towns in Russia will build fast-built greenhouses that will allow to set off losses from forbidden import of a set of vegetables. Construction of greenhouse farms based on year-round cultivation of fresh vegetables is planned in Kaspiysk (the Republic of Dagestan), Chegdomyn (Khabarovsk Krai), Kaltan (Kemerovo Region), and in Cherepovets (Vologda Region). Agro-industrial projects are considered for mono-industry towns of Chelyabinsk Region and the Republic of Khakassia. The total amount of investments is 25

billion rubles. The fund of the mono-industry town development will invest 2.5 billion rubles in construction and reconstruction of the infrastructure objects (Russian Newspaper, 2015). Russian has already experienced the start of greenhouse projects in Leningrad Region where about 130 thousand tons of vegetables are made per year.

The AIC, is the many-sided social and economic structure. It has to be recognized as the most important unit of national economy, and the main objectives of its functioning, according to authors' opinion, will become:

1. Satisfaction of population's wants at the level of the norms established in the country in food and subjects of mass consumption produced from agricultural raw materials;
2. Production of agricultural products of the corresponding quality in such the amount which will be enough for the food reserve creation which will create food security of the country, namely, independence of import of the main products of consumption, especially grains, meat, sugar, vegetable oil, and so on;
3. Enough efficiency of the agro-industrial system of the country;
4. Satisfaction of economic and social wants and interests of employees of the branch of agriculture (Romanenko, 1996).

The AIC of our country takes a special place in "sanction" opposition of Russia and a number of the countries of Europe and America. Indirectly development of the agricultural sphere of Russia was influenced by sanctions concerning "non-agrarian" sectors of economy, also the reciprocal Russian food embargo reflects negative influence. The European Reconstruction and Development Bank had negative economic impact having frozen investments into agrarian projects of Russia. Table 2 reflects investments into the AIC of Russia.

Financial sanctions had negative impact on in-Russian agrarian crediting. Imposition of sanctions against two main creditors of agriculture in Russia which are "Rosselkhozbank" (65% of seasonal and field work credit and 40% of the whole agro-sector credit) and "Sberbank" (more than 30% of seasonal and field work credit) has greatly limited the potential of attraction of external financial resources by using them. That has led to decreased availability of "internal" credits to landowners, first of all, because of doubled rates of interest (Russian Government, 2015).

Russian answers to sanctions in the form of an agro-food embargo had the greatest impact on the AIC promising development. It

Table 2: Commercial investment relations of the agro-industrial complex of Russia (billion dollars) (Federal Customs Service, 2015)

Index	2011	2014
AIC output export	13.3	18.9
Export share, %	2.6	3.3
Share of foreign countries, %	68.0	73.0
AIC output import	42.5	39.7
Import share, %	13.9	13.8
Share of far-abroad countries, %	84.0	86.0
Import covering export, %	31.3	47.6
External FDI to rural and forest industries, fishery	0.7	0.6
External FDI to the food branch	5.9	6.4

should be mentioned that in 2014 Russia imposed a ban on import of a number of the main types of agricultural and food products from the EU, USA, Canada, Australia and Norway that was the answer to sanctions considering existing events in Ukraine. In 2015 the embargo was expanded to Albania, Montenegro, Iceland, and Liechtenstein. And the "big" Russian embargo "was imposed" on a number of types of agro-food products (for veterinary and phytosanitary reasons) from the EU in general (pig-breeding products) and from the certain countries (for example, Poland on a number of suppliers dairy and fruit and vegetable products).

Along with the current situation on the world scene (sanction, embargo, and others) there are inner problems. A factor limiting the AIC development in Russia is the lack of effective state systems of regulation of the food market. Interregional trade barriers have negative impact on development of this sector of economy. Decreased level of competition is influenced by the restrictions on production export leading to sagging of prices. A global problem for the AIC is the difficult financial position of agriculture that is insufficient monetary receipts from product sales because of low price, shortage of current assets, high accounts payable.

Problems of development of rural areas are social and make adverse effect on economy of agrarian production. The infrastructure of rural areas is greatly supported by agricultural enterprises increasing their expenses and worsening financial state. Complexity is that in rural areas there are no other sources of income. Today mono-industry towns, on the basis of which AIC with significant state support and also involvement of non-state investors will be developed, are urged to be the answer to a number of difficult questions and solution of this problem.

6. CONCLUSION

In the modern conditions the AIC development of the country is ambiguous. On one hand, there present some positive results such as increased production in a number of industries, the number of profitable enterprises grows. But, on the other hand, there are also negative processes which prevail over positive changes with the complicated situation in the branch that do not meet the tasks of economic development. It has brought the country to danger to lose its food independence.

The main negative tendency in agriculture is reduction of all elements of the production potential as both separate enterprises and industries in general. Agriculture is in such a situation that application of single measures cannot relieve from crisis. There is the need for profound measures assuming great changes. It is necessary analyze the situation and study the current state of development of regional systems. It will be solution of the problem concerning the AIC overcoming the economic crisis in the country.

One of the main aspects of transformations in the AIC is participation of the state in this process. Solution of the problems concerning the AIC will be promoted by effort association of central power and regions. The important direction of transformations in the AIC is updating and effective use of the material - technical and technological basis of production. The role of the state consists

in increased efficiency of functioning of the branch and social and economic development of the territories which are based on complex interaction of agricultural organizations, investors and the AIC governing bodies.

The real experience of the Russian food embargo shows that it is an important but insolvent condition of rational import substitution in the AIC, its transition to “rails” of stable development and transformation into one of the levers of the general economic growth in Russia. For this purpose, it will be required to develop and introduce the long-term complex agro-food policy on the basis of the Doctrine of Food Security in Russia. This policy is urged to unite productive, economic, social and spatial components; to contain more accurate strategic and tactical (sectoral, regional, and so on) reference points concretized and supported with material resources and institutional and legal tools; to consider the WTO requirements, the principles and mechanisms of development of the general agro-food policy within the EEU.

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