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## Economic Mechanism of Regulating Land Relations in the Agricultural Sector of Russia

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**Abstract:**

*The present study substantiates the economic basis for regulating land relations in the agricultural sector, outline the main stages of the formation and development of land relations in Russia.*

*It also carries out a comparative analysis of land relations in Russia and foreign countries, presents theoretical aspects of economic regulation of land relations in the agricultural sector and considers domestic and foreign experience of the regulation of land relations.*

*The activities of human society in connection with land are carried out on the basis of social relations, the key element of which is land relations. Transformations and regulation of land relations occur in the process of agrarian transformations.*

*Historically, it has been proven that the implementation of agrarian reforms that change the socioeconomic situation, the working conditions of people, the production and marketing of products, does not bring about solid results without a proper transformation of land relations.*

*The unique role of land relations in the system of agrarian reforms suggests that agrarian restructuring must begin with land reform.*

**Keywords:** *Economic efficiency, land relations, land resource, state regulation.*

**JEL Classification:** *O13, Q15, R14.*

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## **1. Introduction**

Historically, the land use of the Eastern Slavs was interconnected with the current organizational form of the people's life, as at the beginning of the second millennium, people lived in tribal communities. By the beginning of the 5th century, the tribal community was replaced by a neighbor community, where people were united not by family ties, but by a community of territory and the associated shared land use and public ownership of the land. Each year, arable lands and mowings were re-shared among families by the number of eaters. In private ownership, there were dwellings, homestead plots, farm animals, working equipment, which was not subject to division. Land issues in neighboring communities were solved at common gatherings (Saifullova *et al.*, 2018).

Preservation in the peasant environment of the community system of land use did not give effective results, because it was based on manual labor and, accordingly, was carried out by the extensive method. And the constant redistribution of land among members of the community did not contribute to the preservation and improvement of soil fertility and hindered the formation of the economic, zealous mentality in a peasant (Pavlyshyn *et al.*, 2018; Shaykhelislamova *et al.*, 2013).

## **2. Methods**

The theoretical basis of the study was the works of domestic and foreign scholars on the economic regulation of land relations in the agricultural sector and problems of land relations. The methodological basis was a systematic approach, which made it possible to ensure the comprehensiveness and purposefulness of the research. The work also used analytical, economic and statistical, monographic research methods.

## **3. Results**

The untimely and late abolition of serfdom in 1861 could not completely solve all land issues. Also, no significant changes occurred in the structure of Russian land ownership. In the process of land surveying, landlords sought to include in their land peasant plots (cross-strip), and thereby to force peasants to rent these plots. For rent, peasants paid with money or labor.

When using free serf labor, landlords earned income in the form of the value of the unpaid labor of peasants, labor-rent and other servitudes. However, after the abolition of serfdom, landlords had to resort to the labor of hired workers and pay them a salary. Landholdings of 500-2,000 dessiatinas (1,350-5,400 acres) in size often were not able to pay salaries to employees. Even even though peasants were obliged to pay labor-rent and perform certain duties for 20 years, until they buy their land plots from the landowner, the material condition of landlords gradually deteriorated.

Under the circumstances, Pyotr Stolypin substantiated the idea of reforming the agrarian sector of the country by founding a class of free farmers. At the heart of the Stolypin reform, together with the idea of forming and strengthening the institution of private land ownership, there was the idea of strengthening the Russian state. Stolypin hoped to carry out agrarian reform gradually, over a period of 20 years, and in his opinion, all the categories of taxpayers – officials, merchants, landlords, industrialists, and peasants – had to bear the burden of reforms. It was supposed to distribute the burden of reform evenly, so that it would not put pressure only on the landlord class, the destruction of which historically led to the destruction of an important cultural stratum in the Russian country.

In general, for the period from 1906 to 1913, about 35% of peasant families left the peasant communities and 15% of peasants settled in farms. Peasants also went to the cities, thereby predetermining the conditions for the development of industrial production due to cheap labor. Thus, for the period from 1906 to 1913, the volume of agricultural production in Russia increased by 3 times. In terms of gross grain harvest, Russia was among the world leaders, livestock increased by 2.5 times, production of industrial crops also increased. Against this background, the Russian industry was also actively developing, since agriculture and industry are closely interrelated and interdependent in many respects (Korableva *et al.*, 2017a).

The real assessment of the Russian achievements of that time is given by the American economist Peter Drucker; in particular, he wrote: *"If Russia continued to grow at the pace it took before World War I, today its industrial output would be equal to or even exceed the industrial output of the United States, instead of being at the most two-fifths of it"* (Drucker, 1994).

The Land Decree annulled the right to private ownership of land – land plots of all forms of ownership were alienated free of charge and turned into national property. Hired labor on land was abolished, and the right to land use was obtained by all citizens of the country who wished to process it on their own. In the provisions of the law "Who has the right to use land", land users were named in the following sequence: agricultural communes, agricultural partnerships, rural societies, separate families and individuals (Poznyak and Romanovsky, 2009; Marwa *et al.*, 2017). Because the land was owned by the state, land relations were regulated on the basis of administratively established regulations. The land revenues were regulated through the taxation of land and the amount of rent, which were established by the same government bodies. In the period of the New Economic Policy (NEP), despite certain successes, economic and other prerequisites were not formed to begin the process of collectivization in the countryside. At that time, there was a large class of land tenants in the country (usually small ones) who, due to the established mentality, did not feel hired workers on the state-owned land.

The liquidation of small-scale peasant farms based on collectivization was based on the need to find additional resources for industrialization of the country weakened by

the war and revolution through agricultural production. It has historically been proven that in any system of restructuring land relations in the agrarian sphere, if the interests of land users are not considered, the results of the reforms do not achieve the intended goal, i.e. without the personal interest of the agricultural producers, effective management cannot be ensured.

Today, it can be stated that the Bolshevik collectivization of agriculture could not solve the national food problem. For seven decades of the Soviet power, there were small rises in agricultural production, which were directly dependent on the size of investment in the agrarian sector, but even in successful years for farmers, agricultural production was significantly lower than the average world production per unit area of arable agricultural land.

In modern market conditions, Russia still retains large-scale collective agricultural production, which turned out at the turn of the century with virtually no state support in the form of a centralized system for the distribution of all types of resources, planning and management systems (Wolter *et al.*, 2018; Kurbanova *et al.*, 2018). The agrarian and land reforms carried out were accompanied by the adoption of several regulations, but no explanatory work was done with potential owners and tenants of land plots. The reorganization of collective and state farms did not suggest a kind of transitional organizational form of operation, logistical and financial support, or state support.

In many constituent entities of the Russian Federation, cases of refusal of owners from their right to land shares have been noted. The main reason, as at the beginning of the ongoing land reform, is the inability to effectively use agricultural land. The owners of land shares prefer to let their plots for rent, rather than to the authorized capital of agricultural enterprises and organizations, because of their economic instability. The current situation with the dominance of land leases in the country's agriculture confirms that in order to move to a higher level of development of land relations, serious investment is required, including against the security of land, as well as modern equipment, technologies, innovations, plant protection products, fertilizers, formed infrastructure, interested workers, because land relations at the weak level of development of productive forces are not able to have a significant impact on improving the efficiency of agricultural production (Korableva *et al.*, 2018; Shaykhelislamova *et al.*, 2014).

Today, there is a continuation of the process of creating integrated formations in the agrarian sector – holdings, agro-firms, financial and agro-industrial groups. At the same time, it should be recognized that there are certain problems with the real status of workers and their land shares in integrated agro-industrial structures. The prerequisites for the integration of industrial and agricultural enterprises are objective regularities and imperative demands of the time – the need for the participation of related sectors of the national economy in the agrifood sector.

However, the process of agro-industrial integration requires further reflection in matters of land relations, since without this, integration cannot be sustainable and stable.

It is worth noting that the flow of industrial capital into agriculture can occur not only through integration schemes but also in other ways: from enterprises – processors of agricultural products on the basis of long-term contracts for the supply of agricultural products, from agro-service companies to provide the production facilities, from leasing property of agricultural enterprises, through leasing, bank lending, mortgage of land and real estate (Ekimova *et al.*, 2018). These areas, along with integration schemes, are widespread in the agricultural sector of most foreign countries. The interaction of corporate and small (often family) agribusiness is based on long-term contracts and distinct organizational, economic and economic principles that do not allow infringement of the mutual interests of the parties and loss of the independence of farmers.

The system of agrarian and land reforms in the republics that were part of the USSR, as well as in the countries of Eastern Europe, was carried out in the direction of market relations, elimination of the state's land monopoly and orientation to private property. At the same time, there was a problem of reforming state and collective agricultural enterprises, because in these countries agricultural production by large collective farms did not prove its advantage in efficient land use. Thus, land plots, as natural objects, remained unchanged in their quantitative and structural form, and their qualitative condition constantly deteriorated – soil fertility was depleted, land degradation processes occurred, as evidenced by low yields of major crops in the public collective sector before the restructuring processes.

Most countries of the former Soviet Union applied the land privatization model, but the individual private sector of agriculture in the Republics of Kazakhstan and Uzbekistan achieved the greatest success in this area, where these solutions to the land issue are justified by the mentality, traditions and large families of rural people. For example, in Uzbekistan, agricultural land is state-owned, but can be transferred to a farmer in the inherited lease for a period of up to 50 years (considering the size of the family). Farmers, in turn, deliver the produced agricultural products under the governmental orders at state-established prices for state-owned processing enterprises, and acquire the necessary production resources (through lending from state-owned banks) from state-owned industrial companies or private firms. The agrarian sector is served by joint-stock service companies, but with a share of state participation in them more than 50%.

The FRG government, despite the high level of own food supply and highly technologically developed farms located in the territory of the Old Lands, has formed significant mechanisms to support agrarian reorganizations on the New (Eastern) Lands through its own budget funds. The regulations governing the land relations of the FRG (Stolypin, 1991) have also spread to New Lands. In the GDR,

the land of agricultural cooperatives was privately owned by their members in the form of land shares, and only part of the land was owned by the state. In this regard, it was assumed that the participants in agricultural cooperatives would easily leave collective enterprises with their land plots.

In comparison with the agriculture of other former socialist countries, the agriculture of the GDR was quite developed, and the standard of living of the rural inhabitants was higher. The Government of the FRG has developed a special program of support for the organization of new and revival of old private farms in the countryside. But as practice has shown, only an insignificant number of members of cooperative formations returned to their former lands as farmers. Most peasants continued to work in cooperatives, believing that there was not enough capital for farming, no experience in a tough competitive environment, and the uncertainty of further existence was frightening.

As a result, the government of the FRG set for the agrarian sector of New Lands some tasks adequate for the current time, which were not reduced only to food security issues. The task of improving the quality of agricultural products, preserving the ecological balance of the natural environment, developing rural areas, obtaining alternative sources of energy from the sun and wind, as well as establishing bio-fuel production from agricultural raw materials seemed quite relevant. The laws adopted after the merger process of the GDR and the FRG provided for the return (restitution) of land plots to citizens from whom they had previously been expropriated. Many FRG farmers sold their farms and moved to New Lands, believing that there are more opportunities to increase land plots and rent the land. Land can be rented by both enterprises and individuals; it is also possible to conclude agreements on the exchange of land plots with the aim of combining them into a single lot for a more rational use of technology.

The amount of rent depends on the soil fertility of the leased plots. The agricultural land market of the FRG is regulated by the state in accordance with the provisions of the law "On legal transactions related to land plots" and other land laws. Purchase and sale of land occur with the permission of local governments. A farmer may not own or lease a land plot of more than 400-500 hectares. In the FRG, the system of pledge of agricultural land is sufficiently developed.

The French authorities create private partnerships that have the right to buy land and property of farmers (who decided for some reason to stop agricultural production) and sell them to farmers on a preferential basis. The transaction procedure is public; its process is under the control of state bodies related to the land market. To entrench young people in the agrarian sphere, young people with an agricultural education are allowed to organize new independent farms. French National Center for the improvement of the structure of agriculture provides subsidies to novice farmers, and for elderly farmers, the Center will pay monetary compensation if they decide to

transfer their farms to younger relatives. These support measures contribute to a positive process of keeping young people in rural areas and form additional guarantees in old age for those people who have linked their lives to work on the land.

When studying the foreign experience in the development of land relations, one can trace the following trend: countries with limited agricultural land resources adopt stricter land regulations and regulations aimed at preserving soil fertility, rational land use and ensuring the environmental safety of agricultural production.

In Denmark, a strict land user responsibility is established when purchasing or renting a land plot – this land can only be used for agricultural production, while ensuring the preservation of the health of farm animals, as well as protection from environmental contamination of land, forest, water and other natural objects in the production territory, as well as on neighboring lands adjacent to it.

In agriculture of the United States, more liberal land relations have developed, due to the high degree of security of agricultural land. But, in contrast to the majority of Eurozone countries, in the United States, the separation of responsibility for solving land issues that have arisen is not hierarchical (according to levels of state power), but only functional. For example, the US Department of Agriculture regulates and controls the use of state-owned agricultural land, develops a state policy in the field of environmental protection of the soil, water, and atmosphere. Control over the targeted use of agricultural land is in the jurisdiction of individual states.

Many US states use a land pledge scheme with the act of transferring it to custody, that is, they conduct a three-way pledge transaction. The third party is the custody company that tracks the execution of the pledge transaction. In case of the fulfillment of a debt obligation, the property right is returned to the debtor, in other cases, the custody conducts the sale of the pledged land plots via an auction. There is a historically established traditional farming structure for land use in Canada's agriculture. Environmental measures and zoning of agricultural territories are carried out at governmental expense. Thanks to the participation of the state in this direction, as well as to the active participation of farmers in the 1930s, Canada managed to overcome the problems associated with wind and water erosion in farmers' fields.

The experience of China's agricultural production in the form of communes and cooperatives has been recognized as ineffective, because of which, the land reform has been launched in many provinces of China since 1984. Its main result is that nearly 250 million Chinese farmers received about 0.45 hectares of land each. The small area of the plots did not contribute to the use of technological processing, which required a lot of manual labor. As a result, the idea arose to create agro-service companies and cooperatives to operate for the land tenants. Gradually, in China, machinery and technologies, credit and supply and sales enterprises, peasant

unions and associations began to form, uniting peasants according to the sectoral principle – the production of rice, grain, fisheries, floriculture, horticulture, and other industries.

A long-term lease for a period of 15-30 years allows one to build land relations on a family basis. Peasants know that if this land is poorly used, it will not ensure the well-being of not only the established family but also the younger generation. In addition to the lease of land, Chinese peasants received the right to independently manage and dispose of the products made. Agricultural transformation in China and changes in the system of land relations predetermined an increase in agricultural production and ensuring the highest possible level of domestic food security. Also, important here was the confidence of Chinese land users in the legal guarantees of sustainable agricultural production based on land leases. In particular, land guarantees include: a ban on termination of a lease agreement until its expiration, the duration of the lease term, a ban on transferring the lease rights to third parties (sublease, pledge), a tenant's independent free disposal in relation to the products manufactured.

Information about the history of the development of land relations, their formation and land resources available in Russia that are suitable for agricultural production is required, first of all to us, as national citizens. In addition, it is important to recognize the importance of land resources in Russia in a global context. Today, the Russian Federation, which accounts for more than 10% of the total area of world agricultural land resources, is becoming an important large reserve of agricultural land on the Earth, at least among civilized countries.

This circumstance is already raising a wave of interest in Russian land, including from foreign investors, attracted by the unique ratio of the following favorable prerequisites for the development of agriculture (Sycheva *et al.*, 2017; Kolmakov *et al.*, 2015; Takhumova *et al.*, 2018):

- ✓ huge areas of land suitable for agricultural production;
- ✓ available reserves for their significant increase;
- ✓ environmental safety of land use (a relatively low level of pollution of the natural environment);
- ✓ geographical proximity of the majority of the country's territory to foreign sales markets;
- ✓ political stability in the past fifteen years;
- ✓ sufficiently developed road transport infrastructure and the economy as a whole;
- ✓ availability of skilled and relatively inexpensive labor resources.

Over the past decades, the global problem has been the growing threat of food shortages and the associated increase in prices for basic agricultural products and,



accordingly, for agricultural land. These trends are justified by three main factors:

- ✓ an increase in the population of the Earth and an increase in the need for food;
- ✓ deterioration of the quality of land resources and the continuous withdrawal of agricultural land from the economic turnover. The process of withdrawal is progressing and, according to some estimates, is up to 1% per year, or 10 million hectares of global agricultural land;
- ✓ increasing the share of use in the national economies of foreign countries (in particular, the European Union) of energy resources obtained from crop production – biodiesel and bioethanol, as alternatives to the traditional energy resources of natural origin.

It should be noted that Russia today is one of the few countries where there is a significant reserve for the development of agricultural production both due to extensive production (increase in area) and intensive production (increase in yield). In addition to be a traditional agricultural producer of food, on a global scale, Russia is positioned as a potential producer and exporter of organic (ecologically pure) food, as well as raw materials to produce biofuels (rape, rapeseed oil).

As a result, the land resources of Russia are currently the object of increased attention from the global community in the person of transnational corporations; therefore, it is extremely important to ensure the safety of the land as a pledge of national and food security, to rationally manage this unique natural resource for the benefit of modern and future generations of Russians.

The land resources of the planet are not differentially equivalent and are used with a variety of purpose. The world land reserve is estimated at 134 million square km, or 13.4 billion hectares – this is the area of the entire land surface of Antarctica and Greenland. The share of the CIS countries is 16% of the global land resources; the same is the share of agricultural land and land potentially suitable for agricultural production – cultivated land, hayfields and pastures, forests. At the same time, the share of Russia in the total land reserves of the CIS is about 80% or more than 17 million square km, which is 13% of the land area of the planet. The land availability for a resident of Russia is 12 times higher than that in Western Europe and Asia, 2 times higher than that in Africa and North America, 1.6 times higher than that in South America and 3.1 times higher than in other CIS countries.

The area of productive agricultural land in Russia is about 9 million square km, or 11% of the world total, and the availability of productive land is more than 6 hectares per capita. Thus, even considering adjustments for unproductive land resources, Russia maintains world primacy, exceeding other countries of the world in terms of the availability of productive land per capita by several times.

The main share of agricultural land of the Russian Federation falls on arable land –

130 million hectares of the total area of 200 million hectares. The area of hayfields, pastures, and perennial plantings is about 70 million hectares. When conducting a ranking of the productive lands of the world, it becomes obvious that Russia is among the main leaders in the available arable land and forests in both absolute and relative terms.

**Table 1.** World countries – leaders in arable land as of January 1, 2016

Country	Arable land area, million ha	Plowed area (share of arable land from the total area of the country, %)	Country's share in the total arable land area, %	Arable land available, ha per capita
USA	185.7	20.3	13.8	0.62
India	166.1	55.9	12.3	0.17
Russia	130.3	7.7	9.7	0.92
China	92.5	9.9	6.9	0.08
Canada	43.2	4.9	3.4	1.44

The analysis of the indicators given in Table 1 allows concluding that Russia occupies one of the leading places on a global scale in three main indicators: total arable land area; plowed area (the territory of Russia is the least plowed); arable land per capita.

#### 4. Discussion

Today, Russia has the best ratio of prerequisites for the development of agriculture, since no country surpasses Russia in more than one of these parameters. However, the given comparisons would not be entirely correct, if two essential circumstances are not noted:

- 1) Unfortunately, more than 50% of the territory of the Russian Federation is unproductive or low productive land. Almost all 8 million hectares of land of the type represented, located in the territory of the CIS countries, fall to Russia – this is the north of the European part of the country and a significant part of the territory of Siberia and the Far East.
- 2) Lands that are critical to be productive can vary significantly in terms of the level of natural productivity, which is also noted in Russia, where there is a high proportion of lands with low and medium levels of productivity. This is often determined by climatic conditions – a long period of low temperatures, a short growing season of crops and spring frosts, which leads to a high risk of agricultural production.

For all that, these shortcomings will be compensated by the total area of land resources, as well as by other factors. The area of productive agricultural land in Russia is approximately 9 million square km, or 11% of the world's total, and the availability of productive land is more than 6 hectares per capita. Thus, even taking

into account adjustments for unproductive land resources, Russia maintains world primacy, exceeding other countries of the world in terms of the availability of productive land per capita by several times.

The main share of agricultural land of the Russian Federation falls on arable land – 130 million hectares of the total area of 200 million hectares. The area of hayfields, pastures, and perennial plantings is about 70 million hectares. When conducting a ranking of the productive lands of the world, it becomes obvious that Russia is among the main leaders in the supply of arable land and forests in both absolute and relative terms. The analysis performed allows concluding that Russia occupies one of the leading places on a global scale in three main indicators: total arable land area, plowed area (the territory of Russia is the least plowed), arable land per capita.

Today, Russia has the best balance of prerequisites for the development of agriculture, since no country surpasses Russia in more than one of these parameters. Targets are also set by the indicator of the plowed area in countries that are to a certain extent comparable to Russia in terms of area, population, and climatic conditions, for example, Canada, the United States, and China. Thus, in the USA, the total area of arable land is 1.4 times more than the same in Russia, the plowed area is 2.6 times higher, and in China, the level of plowing is 1.3 times higher than the Russian indicator. However, in Canada (as the country most comparable to Russia in terms of climatic conditions and area), on the contrary, the level of plowing is below the Russian indicator – 4.9% of the total area of the country versus the Russian 7.7%. But it should be noted that Canada has a significantly lower population (5 times less) and density of the population (2.8 times less), while the availability of arable land is 1.6 times higher, respectively, being 1.44 hectares per capita against the Russian indicator of 0.92 hectares per capita.

## **5. Conclusion**

Based on a study of historical aspects of the formation of land relations in Russia, as well as an analysis of the foreign practice of regulating land relations, it seems reasonable to draw several important conclusions. The first is determined by the fact that with any systemic restructuring of land relations in the national agrarian sector, if the interests of land users are not considered, the results of the reforms do not achieve the intended goal, that is, without the personal interest of farmers, effective land management cannot be provided. The second comes down to the fact that economically developed countries are well aware of and recognize the difference in consequences when the land is an object of property, and also when the land is considered as an object of management. The third conclusion, being a most important for most countries, is not an issue of land ownership, but that of the rights and obligations of landowners and land users. The fourth is that the organizing role in matters of formation and regulating land relations should always be assigned to the government, while the market mechanism is developed within the framework of the relevant land regulations and in the national public interests.

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