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# Retrospective Result Analysis of Land Reforms in the Russian Federation

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**ABSTRACT**

The existing system of land relations requires better organizational and economic mechanisms, search for new ways to increase its efficiency and competitiveness. Land reforms in Russia focused on land privatization transformed the entire system of land relations. Undeveloped state regulation and the difficult financial situation discouraged most agricultural producers from reproducing land resources. The present paper aims to conduct a post-event analysis of land tenure strategies, regulatory and legal acts and scientific and methodological support of land reforms in Russia. The existing approaches to studying theoretical and methodological issues of land relations regulation, shortcomings in methodological and legal support, the practical need for new methods and tools for effective land management in the agricultural sector have predetermined the relevance and significance of the research topic. Research target is the territory of the Russian Federation, the creation of a system of land ownership and land use adapted to the market economy. The study involved analyzing statistical data on agricultural production in combination with quantitative and qualitative indicators of land resources. The work provides a wealth of experience in land transformations, planning and forecasting the Russian territories' socio-economic development, and working out land management methods, which can be applied in other countries.

## 1. INTRODUCTION

Land reforms are aimed at improving the system of land relations, which implies updating the economic methods of their regulation. It should be noted that land relations are the product of a long evolution of society regarding land use and protection. This includes land tenure and management of land resources. Forms of land ownership are determined by national, social, economic and other realizations of land use as a natural resource, means of production and a piece of property. Land relations depend much on the quantity and quality of land, its location, industry affiliation, territorial structure and other characteristics [1].

The land issue in the Russian Federation implies both economic and management regulations, which determine the macroeconomic characteristics of the nation. The Russian statehood, national self-determination and the operation of the entire national economy are based on the concept that land resources are a means of production in the agricultural sector and a spatial basis for minerals making up the priceless wealth of the country. At the present stage of society's development, the interests of every member rely on land resources to one degree or another.

The vital elements of successful land transformations are:

- the strong scientific rationale for land reform relevance, goals, objectives and methods to implement;
- legal, organizational, material and technical support;
- socio - economic dimension;
- recognition of natural factors;
- abolition of serfdom and development of communal land tenure, 1861-1906.
- destroying communal land use and developing private land ownership, 1906-1917.
- land nationalization and transfer of land to private owners, 1917-1927.
- farm collectivization and setting up state farms, 1927-1952.
- strengthening of collective farms, 1953-1990.
- reforming collective and state farms into other forms of land ownershipt, building agricultural enterprises and farm households, from 1991 to the present.

The role of the state in ensuring the country's food security is indisputable. It acts as a guarantor in developing programs aimed at higher efficiency of farmland use [2]. Kim et al. [3] claimed, the state is responsible for agricultural land protection and security when maintaining the country's food self-sufficiency already at the land use planning and forecasting. Bakker and Veldkamp [4] emphasized the need for constant monitoring of newly developed lands for the needs of agriculture to avoid their irrational use. Of special interest are the studies of Mahler [5] on measures to preserve farmlands from rural and urban development and the interrelation of the population growth with land and water resources [6].

The research conducted by Von Bennewitz [7] shows how uneven land distribution influences the quality of land management, impedes the economic development of regions in the long run, affects the economic efficiency of public institutions and living standards [8-11]. Comparative analyses have proved that a more even land ownership distribution increases agricultural productivity, raises the incomes of the rural population, and stimulates overall economic growth in the region [12, 13].

Analyses of Narh et al. [14] indicated that a land reform program must rely on types of land ownership that create (reduce or increase) incentives for rational use of land and make it possible to evaluate the amount of capital investments. Ebinger et al. [15] indicate that a land reform strategy should focus on positive experiences in other countries. Researchers consider property rights as a guiding incentive for better efficiency of land management [15]. In these terms, proper structuring of property rights is key to a land reform program that is socially fair, equitable, legal and reduces the cost of land investment [12].

The findings of Mizero et al. [16], Baten and Hippe [17] show that the reform of the agricultural sector with its inherent agricultural production systems should, first of all, be demand-oriented. They illustrate the need for intense cultivation of strategic food crops as rice, corn, beans, potatoes, and wheat, as well as traditional export crops as tea, coffee, etc., being the most demanded [3, 18]. Rational use of land and other natural resources must be made through market mechanisms.

Kuemmerle et al. [19] have shown land reform as a purposeful and consistent improvement of the system of land relations and economic methods of their regulation. They believe that land relations are based on material factors: the quantity and quality of land, its location, industry affiliation, territorial structure. Volkov and Cherkashina [1] points out the need for new land legislation, which will create a legal basis for regulating land relations and launch a mechanism for land transformations. New land legislation will solve key land ownership issues providing free purchase and sale of land, including farmland. It will promote land market development and provide economic incentives to attract financial resources in agricultural production, increasing efficiency and protecting the land from degradation [20].

Goldewijk et al. [21] linked the population number with land use. They confirmed that population growth influences land relations, develops productive forces, accelerates or slows down production [20]. Chinese scientists Yu et al. [22] point out an ecological relationship between farmland use and food security.

The research of Volkov and Cherkashina [1] indicate that the strategic planning of the country's territory within land relations reform should be based on monitoring studies of land. The system of rational land use should be of an environmental, resource-saving nature, including the principles of preserving soil fertility [1].

The rich experience of land regulation accumulated in Russia shows that the land issue is closely intertwined with state construction. In the second half of the 19th and early 20th centuries N. Kablukov, I. Chernyshev, P. Stolypin, A. Chelintsev, A. Chayanov, V. Lenin, and others made a significant contribution to the development of land relation problems [23-25]. Their scientific works have put the Russian school on the land issue among the leading in the world.

However, the previous findings on land transformations do not provide an optimal model of land relations that can be used in terms of civilized market relations. There is a need to develop different patterns of land transformations, taking into account the requirements of present-day society.

This study explores the Russian Federation's experience in the preparation, implementation, and results of land reforms for the past 30 years. To achieve the research goal, the following objectives are set:

- to study land reforms in the Russian Federation for the period from 1990 to 2020;
- to estimate the socio-economic impact of the 1991 land reform in Russia;
- to identify particulars of the organizational and economic mechanism for regulating land relations in the agricultural sector;
- to study the legal support of state regulation in using land resources;
- based on the retrospective analysis of land reforms to formulate a coherent strategy for land reform and proposals for land management in a market economy.

## 2. METHODOLOGY

The research uses the dialectical approach, system analysis and synthesis, abstract-logical, computational-constructive, monographic and expert methods.

The works of Russian and foreign scholars and experts served as the methodological and theoretical basis of the study [1, 26-30]. The information and empirical base of the study relied on legislative and regulatory acts of the Russian Federation, statistical data of the Federal State Statistics Service of the Russian Federation and the territorial body of the Federal State Statistics Service in the Republic of Bashkortostan, the Ministries of Economic Development and Agriculture of the Russian Federation [1, 2, 31-33]. The data for analysis was taken from State (national) reports on the land condition and use in the Russian Federation for 1992-2020, materials of the Russian Agricultural Ministry, the State Committee for Land Resources and Land Management, the Federal State Register and the Federal State Institution “Land Cadastral Chamber” [32].

The efficiency analysis of the reform in 1991 assumed the study of economic indicators as the land demand scope and nature and land plots availability, the limited supply of land resources, executing transactions on the land market, the specifics of the land market under land reforms. Production indicators of the main livestock products and inter-temporal changes in farmlands and croplands are the data that clearly show the efficiency of land transformations as a result of the undertaken reforms.

The paper examines the following normative legal acts:

- Land Code of the RSFSR of 25.04.1991.
- The Law of the RSFSR “On peasant (private) farming” of 22.11.1990.
- The Law of the RSFSR “On Land Reform” of November 23, 1990.
- the Presidential decree of the Russian Federation “On land regulation and developing the agrarian reform in Russia” of 27.10.1993.
- the Order of the State Committee for Land Resources and Land Management of the Russian Federation of 09.07.1997 “On the next tasks of land reform in Russia” of 09.07.1997.
- Land Code of the Russian Federation of 25.10.2001.
- Federal Law “On Land Management” of 18.06.2001.

The Russian Federation has gained wide experience in the development of land relations. Since Russia became a centralized state, the land issue has been intersected with the state-building. N.Kablukov, I. Chernyshev, P. Stolypin, A. Chelintsev, A. Chayanov, V. Lenin and others made a great contribution to the development of land relation problems in the second half of the 19th and early 20th centuries. During this period, the Russian scientific school on land use research was considered the leading one in the world.

In the later Soviet period, D.Cheremushkin, P.Pershin, S.Udachin, V.Danilov, V.Tikhonov and others worked fruitfully in the field of land relations. Finally, in the 1980s and 1990s, A.Nikonov, E.Krylatykh, V.Khlystun, V.Alakoz, A.Rodin, N.Komov, I.Suslov, Yu.Lyutykh, V.Uzun, G.Shmelev, V.Belenky, S.Kiselyov, V.Goremykin, O.Strokova and others studied land relations in terms of market conditions [1, 27].

## 3. RESULTS AND DISCUSSION

The impact of the land reform of 1991 on the agricultural development in Russia was analyzed on the example of its largest subject, the Bashkortostan Republic. The area of the Republic of Bashkortostan is 14293.7 thousand hectares, or 0.1% of the planet earth and 8% of the Russian territory. Land availability per capita in the Republic as of 01.01.2020 compared to those in the Russian Federation and globally is shown in Table 1.

**Table 1.** Land availability per capita

| Region | Total land reserve, ha | including | |
|---|---|---|---|
| | | farmland | cropland |
| globally | 2.04 | 0.70 | 0.19 |
| the Russian Federation | 12.05 | 1.55 | 0.86 |
| the Republic of Bashkortostan | 3.11 | 1.75 | 0.88 |

Source: Ministry of Economic Development and Trade Russian Federation [31, 32], Russia in numbers [33]

Before the 1991 reform, all land and other natural resources were state-owned and provided to citizens and legal entities only for short-term, long-term or permanent use. The reform differentiated land ownership. There are state-owned, municipal, private and other ownership forms (common, joint, shared) on the territory of the Russian Federation. The lands of federal property and the property of the subjects of the Russian Federation are classified as state property, and the lands of legal entities and individuals are classified as private property.

According to the state land register as of 1.01.2021, the land fund of the Republic is delimited by forms of ownership on an area of 8809.8 thousand hectares (54.3%). 5484.9 thousand hectares (45.7%) have not been demarcated (Figure 1).

As society develops, the nature of land use is constantly changing. So, before 1990 in Russia, the land was state-owned. Now, after 1990, the land is state, municipal, and privately-owned. Lands are being more intensively used. The main concern of the present time is higher land productivity and improvement for future generations.

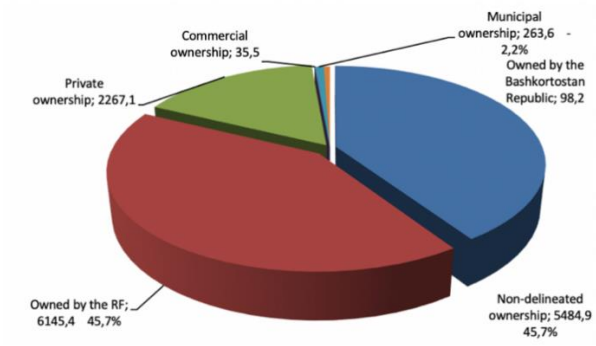
The main share of the land fund In the Republic of Bashkortostan is farmlands (7323.6 thous. ha or 51.3%) and forest and shrubs (5993.4 thous. ha or 41.9%). Changes in the land fund of the Republic by the designated purpose for the years of the land reform is shown in Table 2.

Table 2 demonstrates that over the past 30 years, the farmland area in the Republic of Bashkortostan has decreased. It has resulted from:

- converting agricultural lands to residential;
- expansion of individual housing and suburban construction;
- returning natural forage lands leased by collective and state farms to the forest fund.

The areas of the reserve, industrial and other special-purpose land have decreased. The lands of the water fund are allocated to a separate category (Table 3).

During the years of the reform, the area of agricultural land decreased by 55.0 thousand hectares, cropland by 1135 thousand hectares, as a result of grassing of degraded arable land on the slopes. It was done routinely in 1996-2000 due to a lack of funds to buy machinery and fertilizers and preserve soil fertility. In total, 1162 thousand hectares were laid down in grass.




**Source:** Ministry of Economic Development and Trade Russian Federation [31]

**Figure 1.** Land distribution in the Bashkortostan Republic (thous. ha and %)

**Table 2.** Inter-temporal changes in land reserves by designated purpose in the Bashkortostan Republic for 1990-2020

| Land category | Years | | | | | |
|---|---|---|---|---|---|---|
| | 1990 | 1995 | 2000 | 2010 | 2015 | 2020 |
| Farmland | 8293.7 | 6880.3 | 7851.7 | 7730.5 | 7319.6 | 7265.9 |
| Residential lands | 154.2 | 424.9 | 447.6 | 617.9 | 630.9 | 675.9 |
| Industrial and other special designation lands | 186.1 | 189.4 | 119.1 | 110.5 | 112.2 | 119.2 |
| Lands of specially protected natural territories and objects | 73.8 | 387.4 | 386.7 | 384.3 | 412.0 | 412.4 |
| Forest fund lands | 5505.4 | 5228.9 | 5387.3 | 5352.1 | 5720.6 | 5722.7 |
| Water fund lands | - | 81.0 | 81.3 | 77.9 | 77.9 | 77.9 |
| Reserve lands | 81.5 | 22.8 | 21.0 | 21.5 | 21.5 | 20.7 |
| Totals | 14294.7 | 14294.7 | 14294.7 | 14294.7 | 14294.7 | 14294.7 |

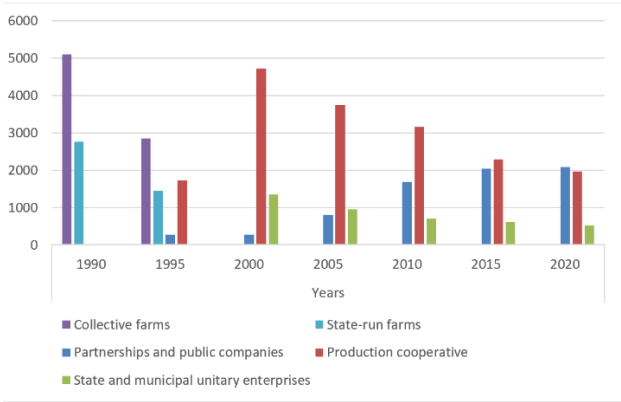
**Source:** Ministry of Economic Development and Trade Russian Federation [31]

**Table 3.** Inter-temporal changes in farmland and cropland in the Bashkortostan Republic. thous. ha

| Type of lands | Years | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 1995 | 2000 | 2005 | 2010 | 2015 | 2020 |
| Total farmlands | 7379 | 7375 | 7365 | 7340 | 7338 | 7332 | 3667 |
| including croplands | 4855 | 4835 | 4315 | 3685 | 3681 | 7324 | 3660 |

**Source:** Ministry of Economic Development and Trade Russian Federation [31]

Before the reform, the main users of agricultural land were collective and state farms. In accordance with the normative acts on land reform, by 2000 they were transformed into other forms of land management as state and municipal unitary enterprises and others (Figure 2). The remaining agricultural land was divided into land shares and given to the common or joint ownership of the employees of these farms. The rest land was assigned to reformed agricultural organizations.




**Source:** Ministry of Economic Development and Trade Russian Federation [31]

**Figure 2.** Land redistribution in collective and state-run farms of the Bashkortostan Republic for 1990-2020 (thous. ha by the end of the year)

By 2000 these transformations destroyed the ecologically balanced agricultural landscape, created for decades according to land management projects based on farming systems. Large enterprises aimed to produce farm products turned into companies seeking profit. The main share of the land of newly created farms is in use and lease. This contradicts the established practice of agricultural land use and the theoretical provisions of domestic and foreign scientists. Thus, Volkov et al. [27] claim that the land reform should protect the existing agricultural landscape and rely on the strategic development of the country's territories and land monitoring. Bakker and Veldkamp [4] have established a connection between changes in land cover and the nature of land use in the process of large-scale land reform and suggest that developing new lands for the needs of agriculture should be taken under strict state control.

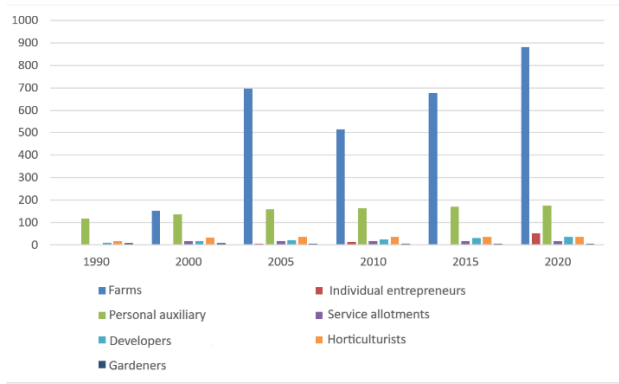
Chinese researchers Yu et al. [22] believe food security and the country's integrity requires accounting for land suitable for agricultural use at the regional level. Goldewijk et al. [21] draw attention to the relationship between the country's population and the nature of land use. Kim et al. [3] believe that the state is obliged to preserve and protect lands, developing a legislative framework for effective planning and forecasting farmland use. In their opinion, these measures will increase the agricultural self-sufficiency of the country [3].

The Republic of Bashkortostan has accumulated a rich experience in maintaining ecologically balanced and sustainable agricultural landscapes. Farm landscapes were developed by anti-erosion measures and on-farm land management projects, based on good-quality planning and cartographic materials and field soil and geobotanical surveys. Several districts (Sharansky, Tuymazinsky, Bakalinsky, Fedorovsky and Khaibullinsky) were identified as primary for implementing a complex of soil protection measures: terracing and afforestation of steep slopes, building ponds and reservoirs, planting protective field and ravine forest plantations, introducing soil protection systems.

The ongoing reform revealed the need for new ways to preserve soil fertility and increase productivity.

The program for the land reform development in Russia planned to create about 100 thousand peasant (private) farms by 1995, increase the size of land in private subsidiary farms by two times, provide citizens with allotment and garden plots. These measures were believed to contribute to higher agricultural production by more than 1.5 times. As a result, 279,1 thousand peasant farm enterprises were created in the shortest time. The area of private farms increased by 1.73 times over these years, gardeners' non-commercial partnerships and vegetable gardens enlarged by more than twice, while the output significantly decreased [1, 22, 25].

In the Republic of Bashkortostan, the reform of collective and state farms and setting up commercial farmer cooperatives were not forced. Farmland privatization occurred in 2007-2009 (Figure 3).




**Source:** Ministry of Economic Development and Trade Russian Federation [31]

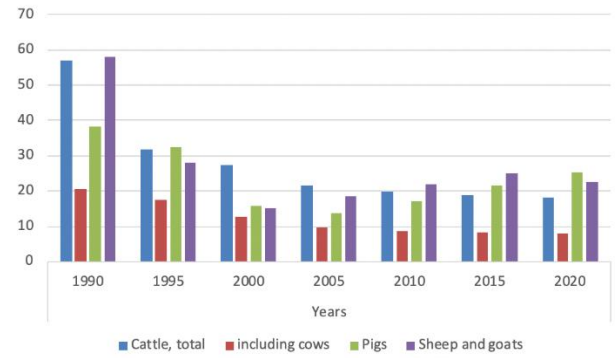
**Figure 3.** Inter-temporal changes in lands of people producing farm products in the Bashkortostan Republic

Reformers anticipated increased interest in registering land plots in ownership, but their expectations were not met. In general, Russian farmers have registered ownership of 40.7% of the land used (6824.9 thousand hectares).

In Bashkortostan, 8.3 thousand hectares were converted to commercial farms, 2.3 thousand hectares for collective and individual gardening, 0.9 thousand hectares for personal subsidiary farms. As of 1. 01. 2021, the average size of the land plot is 139.2 hectares for farmers, 0.28 hectares for subsidiary farms, 0.07 hectares for allotments, -0.15 hectares for vegetable gardens, 0.13 hectares for individual housing construction, 1.5 hectares for service plots.

### 3.1 Economic indicators of agricultural production in the post-reform period of 1990

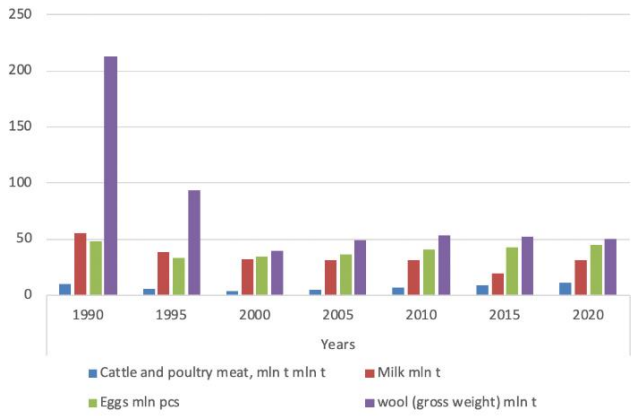
The post-reform period of 1990 is characterized by a decrease in agricultural production, as evidenced by the data presented in Figures 4 and 5.




**Source:** Ministry of Economic Development and Trade Russian Federation [32], Russia in numbers [33]

**Figure 4.** Inter-temporal changes in the number of cattle and poultry in the farms of the Russian Federation, mln heads

The presented data show that the number of cattle in all farms of Russia was steadily declining and had not been restored by 2020 (Figure 4). This inconsistency could be attributed to weak state support for the agricultural producer and the price discrepancy in producing and selling manufactured products.




**Source:** Ministry of Economic Development and Trade Russian Federation [32], Russia in numbers [33]

**Figure 5.** Production of main animal products by Russian farms

The production of livestock and crop products has decreased. The low soil fertility and lack of proper melioration, large scale and intense soil degradation result in an annual shortage of 37-45 million tons of agricultural products in terms of grain. A possible explanation is that the continuing mismanagement of land, a sharp reduction in investment in chemicalization, land reclamation and anti-erosion measures, weak material and technical capability, the destruction of state land services responsible for increasing soil fertility.

The decline in agricultural production adversely affected the food supply. The Federal Law “On the consumer basket as a whole in the Russian Federation” No. 44-FZ of 1996 provided for reduced consumption of basic food products (meat, milk) by almost two times and increased intake of bread, potatoes, vegetable oil compared to the standards of the Nutrition Institute of the Russian Academy of Medicine Sciences of the USSR.

All these circumstances had a negative impact on the overall economic indicators of the country.

When studying land transformations in Russia, it is necessary to consider natural and climatic conditions and available large areas of land resources. The land is a means of production in the agro-industrial sector of the country and represents an element of statehood, national self-determination, and the functioning of the entire national economy. Land resources are a spatial basis, with minerals representing the wealth of the country [1, 25]. Land resources play an important role in the life support of society as a whole and each of its individuals individually [1, 28, 30].

A review of scientific research shows that presently many foreign producers, like China and some European countries, pay special attention to the proper use of agricultural land. World experience indicates that using agricultural land entails the following challenges: rational use of land resources; quantitative and qualitative protection of land; developing the foundations of rational farming [3, 17, 29]. All the problems mentioned above are solved according to the laws of the market economy and state regulation of land relations, aimed at redistributing agricultural land to efficient agricultural producers for its use in agricultural production. In our opinion, the legal experience of foreign countries in ensuring the rational use of agricultural land cannot be copied and transferred to the current Russian legislation. The domestic regulation must rely on the history of land relations in the agricultural sphere, the social characteristics of the village, the existing economic conditions for the development of a legal system aimed at the effective use of agricultural land.

Land resources are attracting interest, not as an asset but as a unit of production. Western scientists [4, 5, 14, 34, 35] believe that the principle of limiting the rights of the private owner by the state in favour of society, the tenant, anyone who processes it is reasonable and relieves social tension. Hence, it is more reasonable to distinguish landowners as effective economic entities, not subjects of private property [1, 4, 5].

As professor Volkov claims, the present-day land policy should not focus on ownership transformations but on developing measures to grow agricultural production and increase efficiency. In case of transition to new forms of ownership (private, municipal, mixed, collective), this is one of the necessary conditions, which implies its optional fulfilment [1, 2].

Reduced agricultural land as a result of terminated activities of agricultural enterprises leads to their rapid degradation. This fact contributes to a decrease in agricultural output necessary to ensure the country's food security.

Developing an active land market in the country requires the conversion of state-owned land to private ownership. Mechanisms for the right implementation should ensure land transfer into private ownership.

Researchers Volkov and Cherkashina [1] propose to address this problem by adopting a new Land Code of the Russian Federation. In our opinion, the new Land Code will create a legal basis for regulating land relations and initiate mechanisms for land transformations. New land legislation will solve key land ownership issues providing free purchase and sale of land, including farmland. It will promote land market development and provide economic incentives to

attract financial resources in agricultural production, increasing efficiency and protecting the land from degradation [1].

The absence of a new Land Code contributes to a legal vacuum in land regulation, which forces the Russian Federation's subjects to issue local legislative acts on land. It results in illegal actions when granting and withdrawing land and arranging their use.

Improved land relations should address issues of land ownership, the land market, and ways to solve them at the regional (district) level. These issues cannot be solved without the regulatory role of the state.

The Russian Federation is facing the task of creating a land use system that will combine land ownership and social justice in the use of land resources.

## 4. CONCLUSION

The conducted research relies on domestic and foreign scientific works on land relations, land management, and rational land use. The study was conducted based on land and urban planning regulatory and legal acts, territorial planning, and municipal land management schemes used in constituent entities of the Russian Federation. A retrospective analysis of land reforms in Russia showed the positive and negative sides of the transformations and provided the forecasts for the development of land relations in the country.

Land regulation methods in Russia were limited by requirements of the social development and ways of their implementation. Still, none of them created a comfortable life for the population of the country. Now, improved regulatory and information component of land reforms entails:

- to develop and adopt a set of federal laws to regulate individual constituent land relations (land allocation, register, assessment, land management, monitoring, transactions);
- to develop a federal target program, paying particular attention to land management, the development of agricultural land use, the problem of settlement, land payments on a rental basis, the elimination of criminalization of the land market;
- to implement land use and protection measures, land ownership arrangement and regulation, land tenure and special land funds, arranging territories for agricultural enterprises, and creating favourable environmental conditions;
- to develop measures for protecting agricultural lands to provide people with quality food;
- to develop measures for land management;
- to organize cadastral information support as one of the main links in the land management mechanism.

Effective land relations can be ensured with the leading role of the state in the land market development and must be based on a long-term comprehensive program.

The ongoing land reform has significantly changed the forms of land management, the types of land rights, and the amount of payments. Land payments should play a significant role in the formation of their budgets.

The subjects of the Russian Federation are granted the right to develop programs for organizing the rational use, protection of land resources and increasing their productivity. There is a need for expanding the powers of the subjects of the Russian Federation in developing legal support for land regulation.

One of the main links of the land management mechanism is cadastral information support.

Russian agriculture has excellent prospects, and the country can become a leading agricultural producer soon. However, that requires preserved agricultural land, its higher capitalization and investment attractiveness, which is not consistent with the latest trends in the reform of land legislation.

The land reform, designed for an extended period, affects almost all social groups of the population. In each region, it has its characteristics, the pace of development. The regional peculiarities of the land reform and the best practices of its implementation should be taken into account when finalizing the Land Code.

Academicians and officials can use the research findings and recommendations to regulate land relations in the Russian Federation and abroad.

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