

# Return of unused land to agricultural production

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**Abstract.** In the context of the state policy of import substitution and the development of the export potential of the domestic agro-industrial complex, the importance of agricultural land is increasing. In Russia, it is possible to increase their area due to the involvement in the active economic turnover of unused agricultural land. The scientific study had analysed the quantity of agricultural land, the causes of crises in land management and the views of scientists on how to overcome the crisis, and an assessment of State action to return land to agricultural use. It was concluded that it is necessary to identify and implement the most effective forms and methods of state support, as well as strengthen regional financial support for agricultural producers involved in the involvement of unused land in agricultural turnover. An analysis of federal targeted programs to preserve agricultural land and increase its productivity has shown a high level of effectiveness. In order to make informed decisions on the involvement of land in turnover and to predict the improvement of its condition and use, the creation of a single digital platform combining disparate data of different departments on the state of land, their quality characteristics, legal status is important.

## 1 Introduction

One of the most pressing tasks in the development of the modern agro-industrial complex of Russia is the involvement in the active economic turnover of unused agricultural land. Land is one of the main factors of production, the quality of the obtained products, the final results of the financial and economic activities of agricultural producers, and the well-being of rural residents depend on its rational use. It has a significant impact on the gross harvest of crops, which is of particular importance in the context of the implementation of the export-oriented strategy of the domestic agro-industrial complex, according to which it is necessary to produce agricultural products in volumes sufficient to achieve the planned indicators of food security for domestic consumers and increase supplies abroad.

Goncharov V.D., Rau V.V. (2018) are solidary with other Russian economists that Russia has significant resource potential and in the near future can take a leading place in the

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world agricultural market, developing mutually beneficial cooperation with countries near and far abroad, making a significant contribution to the fight against poverty and hunger on our planet [1].

## 2 Research methodology

The information base of scientific research was the data of the Federal Service for State Registration, Cadastre and Cartography (Rosreestr), National reports on the implementation of the State Program for the Development of Agriculture and Regulation of Markets for Agricultural Products, Raw Materials and Food, publications of domestic scientists on the subject. In preparing the scientific article, were used analytical, monographic, statistical-economic methods and the method of graphic images.

## 3 Results

In Russia has huge land resources, including agricultural land. According to Rosreestr, as of January 1, 2019, the area of the land fund of the Russian Federation amounted to 1,712,5 million hectares, of which 22.3% occupy agricultural land used for agricultural activities, the creation of protective forest plants, educational, research and other purposes related to agricultural production, as well as for fish farming. Of the 382.5 million hectares of agricultural land, 197.7 million hectares (51.7%) are farmland (arable land, hayfields, pastures, deposits and land occupied by perennial plantations), the remaining 48.3% occupy non-agricultural land on which domestic roads, communications, buildings and structures, forest plantations and water bodies are located.

The dynamics of land use from 2010 to 2018 shows that the area of agricultural land decreased by 4.4% from 400.0 million hectares to 382.5 million hectares. Only in 2018, according to Rosreestr, 770.3 thousand hectares were withdrawn from the category of agricultural land. The reasons for the elimination of agricultural land from circulation are: the division of a single land and property complex as a result of land privatization, the transfer of land to other categories, the misuse of land plots in agricultural land, the development of processes of arable land degradation, insufficient state support for soil fertility conservation.

In addition to accounting for land by category and land, Rosreestr controls the distribution of the land fund by form of property. According to Rosreestr, as of January 1, 2019, there were 254.8 million hectares of agricultural land in municipal and state form of property, 127.7 million hectares in private ownership, of which 107.6 million hectares were owned by citizens, and 20.1 million hectares were owned by legal organizations. The dynamics of the transfer of agricultural land to various by property forms over the past 6 years shows that in 2018, compared to 2013, the area of land owned by legal organizations increased by 31.58% compared to 2017 by 3.63% (Table 1) [2].

The areas of land under municipal, state and private property in 2018 compared to 2013 decreased by 1.36 % and 4.78 %, compared to 2017 by 0.27 % and 0.83 %. Despite the changes, most agricultural land is in municipal and state property - 66.6%. 33.4 % of the land owned by private property, including 84.3% owned by citizens and 15.7% owned by private property of legal organizations.

**Table 1.** Dynamics of agricultural land transfer by property forms in 2013-2018, million hectares (The source: developed by the authors based on [2])

2013	2014	2015	2016	2017	2018	2018 κ 2017		2018 κ 2013	
						+,-	%	+,-	%
State and municipal property									

258.3	257.9	255.4	255.6	255.5	254.8	-0.7	99.73	-3.5	98.64
Private property of citizens									
113.0	111.2	111.1	109.7	108.5	107.6	-0.9	99.17	-5.4	95.22
Private property of legal organizations									
15.2	16.4	17.3	18.2	19.3	20.0	0.7	103.63	4.8	131.58

Among the lands that are both state (municipal) and private property, there are unused lands that are not involved in active economic turnover. More than half of the unused land in the Russian Federation falls on land owned by a municipality or State and free from the rights of third parties. The remaining part consists of land that is not used for the intended purpose and is owned by citizens and private property legal organizations, as well as land of municipal and state property leased, lifelong inherited ownership and permanent (indefinite) use. Thus, currently, the areas of unused land in state and municipal property exceed the indicators of the areas of unused land in private property.

Mamontova I. Yu. (2020) emphasizes that the emergence of a large number of land owners and the development of various forms of ownership of agricultural producers aggravate the problems of managing agricultural land [3].

Lipski S.A. (2019) believes that the presence of a large number of small plots formed from land shares complicates agricultural production [4].

According to the Report on the State and Use of Agricultural Land of the Russian Federation in 2018, as of January 1, 2019, the area of unused agricultural land amounted to 43.98 million hectares or 11.38% of the total area of agricultural land. The largest area of unused land is available in the Central, Volga and Siberian federal districts, the least unused land in regions with favorable agro-climatic conditions and highly fertile soils - in the South and North Caucasus Federal Districts.

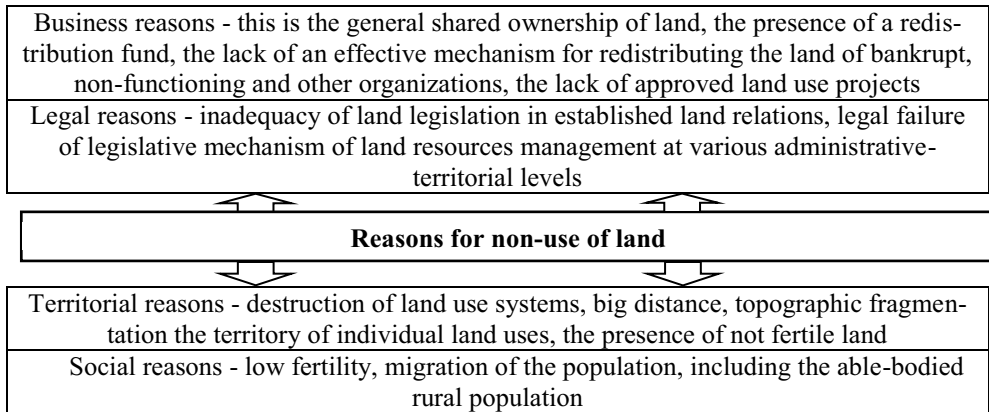
The area of unused farmland at the same date amounted to 33.08 million hectares - 16.66% of the total area of farmland and 82.05% of the area of unused agricultural land, the area of unused arable land - 19.6 million hectares or 16.80% of the total area of arable land in the country [2].

Petrova I.A. and Zelman O.S. (2018), considering the problem of non-use of agricultural land, indicate that initially this problem was due to the land reform of 1990. The transition to a variety of forms of ownership, the absence of approved land reform programmes, significant errors in approved regulations, the organization of inadequate state accounting for agricultural land have led to their unsustainable use, making agriculture an unbalanced and unstable industry. Today, according to the authors, the situation is aggravated by the difficult financial and economic situation of organizations, high competition in the markets, insufficient State support for small forms of farming, and a complex mechanism for providing land to effective agricultural producers [5].

Semochkin V.N., Sharov P.I., Shadmanov M.R., Zimenkova K.A. (2020) identify 5 groups of reasons for the non-use of land - economic, business, legal, territorial and social (Figure 1). They believe that economic reasons are the main reasons for the non-use of land in our country.

These causes contribute to the emergence of huge areas of unused land, and their subsequent degradation (the appearance of overwetted, forest-overgrown land, etc.). The development of these negative processes in the future leads to an increase in the volume and cost of land development, the appearance of land that is not suitable for growing plants. The cost of involving land not used for more than 30 years in agricultural circulation is equal to the cost of developing land that has never been used in agricultural activities before [6].

Economic reasons – this is the poor material and technical support, insufficient financial assistance from the State, low attractiveness of agribusiness to private investors



**Fig. 1.** Reasons for non-use of land (The source: developed by the authors based on [6])

Lipski S.A. (2020) notes the fact of deterioration in the quality indicators of meliared land from 2010 to 2018. Of particular concern are the reclamation systems that have been transferred to the use of the constituent entities of the Russian Federation and agricultural producers, which could not organize the effective use of reclamation, which led to the fact that a significant part of the reclamation fund is not used in agricultural activities [7].

The State is pursuing a policy aimed at preserving the country's land fund, which consists in improving the legislative provision of land management, creating mechanisms for protecting agricultural land from decommissioning, but analysis of data from State monitoring of the state of agricultural land and scientific studies of Russian scientists show that the measures taken by the State are insufficient. The development of processes of water and wind erosion, desolation, waterlogging, obsolescence, loss of soil fertility, etc. continues.

The growing (and possible irreversibility) of the negative consequences of the degradation of productive agricultural land, the reasons for their occurrence and the need to formulate land policies in the direction of protecting the land fund, as a national treasure, are much talked about in the scientific community. Scientists see ways to overcome the current deep crisis in strengthening state policies aimed at ensuring the protection of the country's land resources from degradation and mismanagement. According to scientists, it is necessary to develop a system for monitoring land and using its results in preparing management decisions related to the organization, use and protection of land. On the one hand, it is necessary to improve the system of measures for state stimulation of rational use of land, on the other hand, to develop a system of measures for the responsibility of individuals and legal entities for the degradation or mismanagement of land.

Alakoz V.V. (2016) proposes to provide state support to agricultural producers depending on compliance with mandatory rules of rational land use, the mandatory implementation of which is established by land management legislation [8].

Denisov V.I. (2019) believes that state support in the form of direct reimbursement of land purchase costs can return unused agricultural land to economic use. The author cites the following data: agricultural organizations and peasant (farm) farms are ready to purchase at least 7 million hectares of land from the owners, which for one reason or another are unable to process it, budgetary deductions for compensation for land redemption will amount to approximately 88.5 billion rubles, and the expected increase in agricultural production could amount to 121 billion rubles, thus exceeding the budget expenditure on land redemption by 1.4 times [9].

Ivanov A.L., Savin I.Yu., Stolbovoy V.S. (2016) believe that state support is needed to subsidize cadastral works that ensure the registration of agricultural land rights [10].

In order to develop measures of state support, the question of determining the value of agricultural land arises. Alakoz V.V. (2016) proposes to establish the value of land not at the cadastral value, but at the degree of its suitability for growing crops and productivity [8]. Ivanov A.L., Savin I.Yu., Stolbovoy V.S. (2016) believe that the assessment of soil bonitet score makes it possible to compare soil quality not only within the country, but also between states, which is especially important in the conditions of globalization and unification of agricultural production [10].

In a number of regions of the Russian Federation, agricultural producers were supported by local and entity budgets. For example, part of the costs of involving land in agricultural turnover, allocating land shares in kind and registering land rights were compensated.

It is necessary to further develop existing forms of support, such as regional subsidies to agricultural producers to reimburse part of the costs of agrochemical survey of arable land, liming of acidic soils.

The decisive factor of the progressive shift in the agrarian sphere of our country, including the involvement in the circulation of agricultural land, was a new format of state policy aimed at systematically solving problems in the agro-industrial complex based on the introduction of program-targeted management methods. A key component of the program-targeted method is a system of measures linking tasks, timelines, resources and tools of public policy. Targeted programmes include goals and a set of organizational, economic, research, production, social and other tasks and measures aimed at solving economic problems in the most effective way [11].

One of these programs was the Federal Target Program (FTP) «Preservation and restoration of soil fertility of agricultural land and agrolandscape as the national heritage of Russia for 2006-2010 and for the period until 2013», approved by Decree of the Government of the Russian Federation of 20.02.2006 No. 99.

The resource support for FTP implementation amounted to 547.76 billion rubles, of which: 76.6 billion rubles - federal budget funds, co-financing from the budgets of the constituent entities of the Russian Federation and local budgets - 66.26 billion rubles, extrabudgetary sources - 404.9 billion rubles [12].

Over the years of implementation of this FTP, 4.85 million hectares of unused agricultural land were involved in agricultural turnover, 7.1 million hectares of land were prevented from leaving agricultural circulation, land was protected from water erosion, flooding and flooding on an area of 769.95 thousand hectares (4 times the planned volume), protected and preserved farmland from wind erosion and desertification on an area of 1.05 million hectares.

Following the results of the implementation of the set of FTP measures, social, environmental and economic effects were obtained. As a result of the restoration and preservation of soil fertility on an area of 11.9 million hectares of agricultural land, the ecological effect was estimated at 49.98 billion rubles. The social effect of the program was the preservation and creation of additional 115.94 thousand jobs, provision of centralized drinking water supply to rural areas with a population of at least 700 thousand people, and protection from rising groundwater levels of 290 rural settlements and from inundation of 670 settlements with a population of 1.4 million people, agricultural and industrial facilities [13].

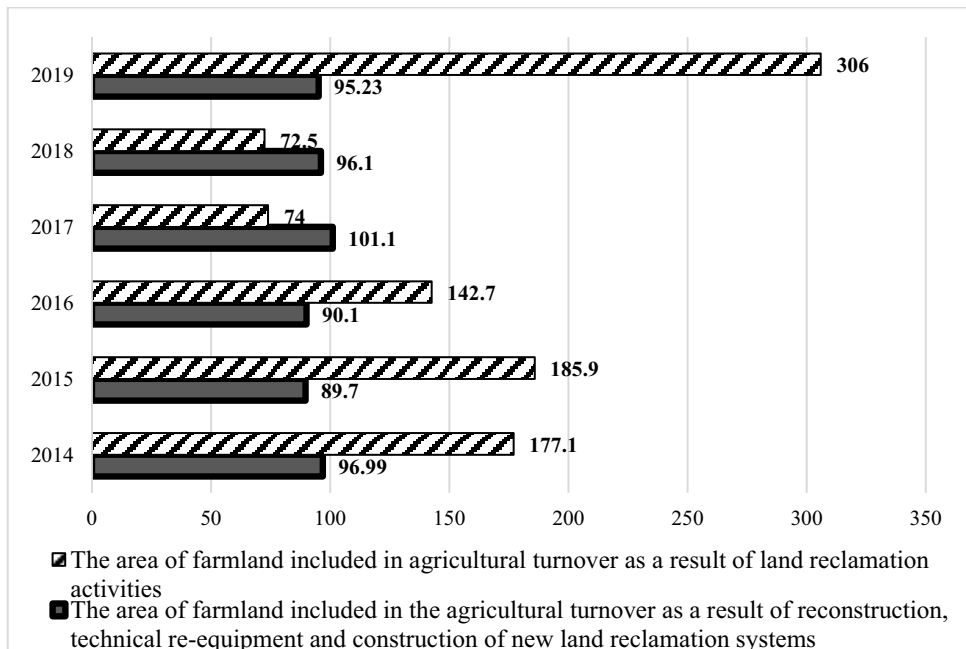
The economic effect of implementing the program measures amounted to more than 236 billion rubles. This effect was expressed in additional revenues of tax payments from agro-industrial enterprises. Due to the increase in the production of agricultural products by farmers, an estimated profit in the amount of more than 71 billion rubles was obtained with a payback period of capital investments of less than 5 years and an internal rate of return of 67.3% of the total investment [14].

Instead of continuing the program to preserve and restore the fertility of soils of agricultural land and agrolandschaft, the Decree of the Government of the Russian Federation dated 12.10.2013 No. 922 approved the Federal Program «Development of land reclamation for agricultural purposes of Russia for 2014-2020». The objectives of the new programme were to increase the productivity and sustainability of agricultural production and soil fertility through integrated land reclamation in the face of climate change and natural anomalies, to increase the productive potential of land reclamation and to use natural resources effectively.

According to the Decree of the Government of the Russian Federation dated 12.10.2017 No. 1243, the FTP «Development of land reclamation for agricultural purposes of Russia for 2014-2020» was terminated ahead of schedule from January 1, 2018, however, its activities continue to be implemented within the framework of the State Program for the Development of Agriculture and Regulation of Markets for Agricultural Products, Raw Materials and Food for 2013 - 2020 Years.

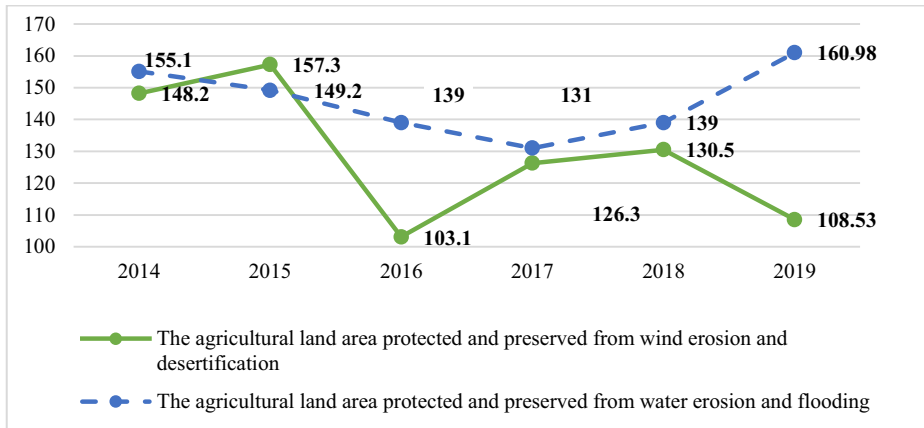
Financing of measures for the development of land reclamation for agricultural purposes is carried out at the expense of the federal budget, the budgets of the on statement entities of the Russian Federation and extra budgetary sources. For the period from 2014 to 2019, the total amount of financing increased by 19.74% from 20 401.8 million rubles to 24 429.5 million rubles. Federal budget expenses increased almost 2 times from 7 724.1 million rubles to 13 175.7 million rubles. However, in general, funding for the development of agricultural land reclamation is significantly inferior to the financial support of the previously implemented program for the preservation and restoration of soil fertility.

In the period from 2014 to 2019, 958.2 thousand hectares of agricultural land were included in the turnover as a result of reclamation measures, 569.22 thousand hectares of reclamation land were put into operation as a result of reconstruction, technical re-equipment and construction of new reclamation systems of individual and public use (Figure 2) [15-16].



**Fig. 2.** Land included in agricultural turnover in 2014-2019, thousand hectares (The source: developed by the authors based on [15-16])

During this period, measures were taken to protect 773.93 thousand hectares of agricultural land from wind erosion and desertification. 874.28 thousand hectares of land were protected from water erosion, flooding and flooding due to flood control measures, technical equipment of operating organizations, major repairs of reclamation facilities, and clearing of reclamation channels (figure 3) [15-16].



**Fig. 3.** The area of protected and preserved agricultural lands in 2014-2019, thousand hectares (The source: developed by the authors based on [15, 16])

The State Program for the Effective Involvement of Agricultural Lands and the Development of the Land Reclamation Complex of the Russian Federation, a project of which was developed by the Ministry of Agriculture of Russia, is aimed at further involving agricultural land in the circulation, improving food security and expeditiously solving problems in the development of agro-industrial complex. The period of implementation of the state program is 2021-2030, its cost exceeds 1.018 trillion rubles, including about 763.2 billion rubles are federal budget funds. In the first year, 68.46 billion rubles should be allocated for the implementation of the program, including 54.24 billion rubles from the federal budget.

The system of introducing agricultural land into the turnover, as the Ministry of Agriculture of Russia notes, currently does not contain information about their quality, composition and ownership structure - the data are missing, scattered or unreliable. In this regard, the first goal of the new state program is to collect and systematize data on lands and land plots in relation to 100% of agricultural land in relation to the level of 2019 (as of 2021 - 33.3%, as of 2022 - 66.6%, as of 2023 - 100.0%).

The goal of collecting and systematizing data on land and agricultural plots from the new state program is correlated with the development of the federal state information system «Unified information resource on land and real estate». The system is supposed to combine data on land and real estate objects from a single electronic cartographic basis, a federal spatial data fund, a single state real estate register, a state cadastral assessment data fund, a single federal information system on agricultural lands and lands used or provided for agriculture as part of lands of other categories.

Herewith the Unified Federal Information System on Agricultural Lands combines data from systematic observation of the state and use of agricultural lands, including types of agricultural land, cultivated crops, quality characteristics of land, indicators of soil fertility, etc.

According to estimates of the Ministry of Agriculture, by 2030 it is necessary to additionally involve about 12 million hectares of land in circulation (the second goal of the state program). The third goal is to preserve and increase the fertility of agricultural land (2021 -

56 thousand hectares, 2022 - 59 thousand hectares, 2023 - 62 thousand hectares, 2024 - 65 thousand hectares, 2025 - 68 thousand hectares, 2026-2030 - 70 thousand hectares annually).

The effect of the implementation of the new state program, according to its developers, will increase business interest in the development of rural areas, increase the involvement of local resources in the investment process, make rural areas more attractive for life, play a significant role in preserving the way of life in rural areas, will have a beneficial impact on the financial stability of agricultural producers and increase incomes of the population living in rural areas.

## 4 Conclusion

Thus, the involvement in the circulation of unused agricultural land is one of the priority tasks of the development of the economy, in the resolution of which both citizens and the state are interested. In our country, this process is complicated by legal, social, organizational, territorial and especially economic problems. For many agricultural producers, measures to involve land in the turnover require large financial investments, in this regard, support measures are of particular importance, both at the federal and regional levels. Federal target programs had become tools to address the problem of the involvement of agricultural land in the economic turnover. In recent years, significant results have been achieved in the implementation of these programs, but the involvement in the circulation of agricultural land remains one of the most acute problems in the domestic economy.

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