

# Problems of accounting for land plots of agricultural enterprises: a case study in Russia, Samara region

*Vladimir Nosov*<sup>1,2\*</sup>, *Olga Vaganova*<sup>3</sup>, *Kirill Zhichkin*<sup>4</sup>, *Lyudmila Zhichkina*<sup>4</sup>, *Olga Anichkina*<sup>5</sup>, *Darya Volnistova*<sup>5</sup>, and *Maria Ivkina*<sup>5</sup>

<sup>1</sup>Plekhanov Russian University of Economics, 117997 Moscow, Russia

<sup>2</sup>Academy of the Investigative Committee of the Russian Federation, 125080 Moscow, Russia

<sup>3</sup>Yuri Gagarin State Technical University of Saratov, 410054 Saratov, Russia

<sup>4</sup>Samara State Agrarian University, 446442 Kinel, Russia

<sup>5</sup>K.G. Razumovsky Moscow State University of Technologies and Management, 109004 Moscow, Russia

**Abstract.** The article analyzes modern problems of accounting for land plots of agricultural enterprises. These problems are associated with a number of objective reasons, the main of which are: inaccuracies in the cadastral registration of the relevant land plots, the uncertainty of ownership of the relevant land plots, a different category of agricultural land, the impact of the process of reforming the domestic accounting system and the introduction of International Financial Reporting System (IFRS). All methodological difficulties that arise in practice in the work of an accountant can be resolved in the course of the formation of an annually issued order on accounting policies. It is in this internal regulatory document that it is possible to provide for all the features of keeping records of land plots in a particular agricultural enterprise, which will improve the analytical quality of accounting, its timeliness and reliability.

## 1 Introduction

Land resources are perhaps one of the least considered in scientific publications asset of agricultural enterprises at the present stage of development of economic thought. This is due to the fact that the industrial revolution that took place in the 19th century led to a transition from the agrarian orientation of the economy to the predominance of the industrial component [1-6].

Accordingly, the issues of accounting for land plots owned by industrial enterprises were solved quite simply at that time, namely, they were considered as an integral part of the building [7-9].

Land is a natural resource, which for an agricultural producer is the main means of production, characterized by space, relief, soils, is a specific product that has its own price [10]. In addition to this, in the period after the October Revolution, land was withdrawn from the system of private property and became state property, with the exception of personal subsidiary plots. During the period of post-Soviet reforms, private ownership of

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\* Corresponding author: [novla@mail.ru](mailto:novla@mail.ru)

agricultural land was resumed, which requires the restoration and improvement of the accounting system for such plots in accordance with modern accounting standards [11].

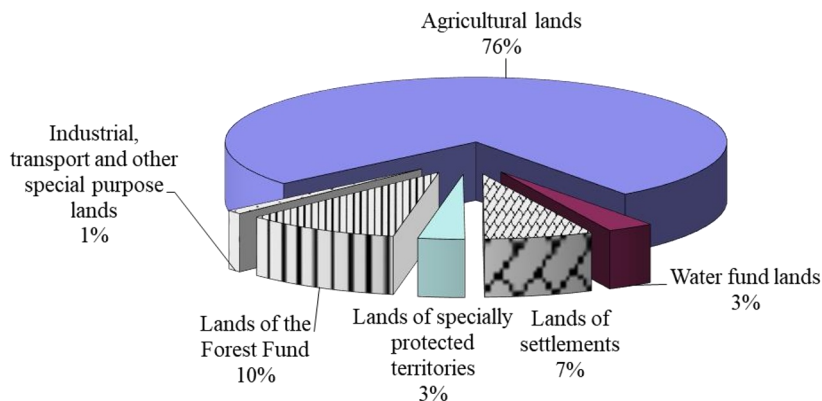
In accounting, land is a special object of accounting and the reliability of the reflection of operations with land resources in it is an objective necessity. The purpose of this work is to analyze the current problems that arise in the organization of accounting for land plots of agricultural enterprises.

## 2 Materials and methods

«The methodological basis of the research is the dialectical method of cognition. At the same time, the work uses theoretical and empirical research methods. The article is based on the provisions of the Constitution of the Russian Federation, land and civil codes, Federal Law "On Accounting", International Financial Reporting Standards. The work investigated the works of domestic and foreign scientists on the problem under consideration» [12]. «The results of the research are presented in graphical forms» [13].

## 3 Results and discussion

The Samara region is located in the east of the European part of Russia. Significant territories are represented by a variety of landscapes, ranging from the old mountains (Zhigulevsky) and ending with the steppes [14-16]. Agricultural land occupies more than  $\frac{3}{4}$  of the entire territory of the region, the area of which is 53.6 thousand km<sup>2</sup> (according to data as of 01/01/2021) (Fig. 1).

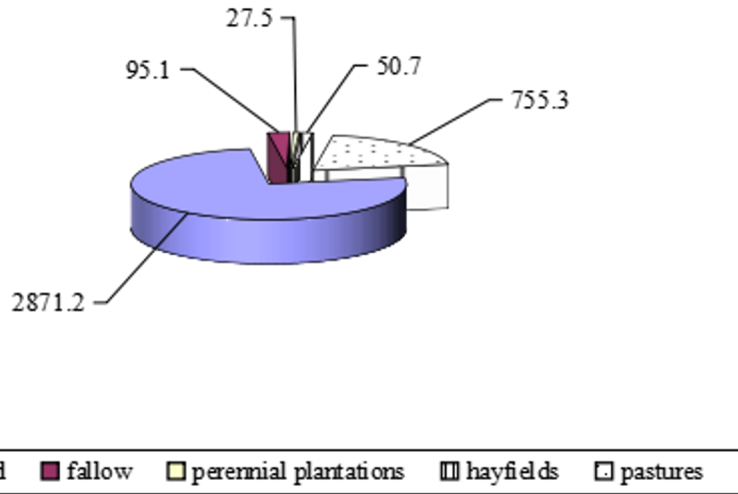


**Fig. 1.** Lands of the Samara region (by category).

The area of agricultural land is 4001.7 thousand hectares. In turn, they are subdivided:

- on agricultural land (3799.8 thousand hectares - 92.9%);
- on arable land (2871.2 thousand hectares - 75.6%);
- on hayfields (50.7 thousand hectares - 1.3%);
- on pastures (755.3 thousand hectares - 19.9%) [17-19].

The complete structure of the distribution of agricultural land by agricultural land is shown in Fig. 2.



**Fig. 2.** Distribution of agricultural land by agricultural land.

During the period of the planned economy in the USSR, the land did not have a special status as an object of ownership, because the land on which there were industrial enterprises and agricultural land was owned by the state. It was with the transition of the Russian economy to market relations that the process of alienation and transfer of land plots to private ownership of both legal entities and individuals began. In the Russian Federation, land plots can be owned by both municipalities and settlements, and the property of legal entities and individuals. If we consider the existing practice, land plots of agricultural enterprises are either owned or in long-term lease (the lessor is the municipal authorities). This causes certain difficulties in the assessment and accounting of this type of assets. There are especially great difficulties in the procedure for assessing and accounting for land plots for economic entities belonging to the agricultural sector. These difficulties are associated with a number of objective reasons, among which it is worth highlighting a few of the most important. Namely: inaccuracies in the cadastral registration of the relevant land plots, the uncertainty of ownership of the relevant land plots, a different category of agricultural land depending on the applied processing technologies, the impact of the process of reforming the domestic accounting system and the introduction of IFRS [20-26].

Let us consider in more detail the influence of each of the factors listed above. So, inaccuracies of cadastral accounting. Today, the system of cadastral registration is being reformed [27-33]. Do not forget that land plots are not only land under plantations and buildings, but also under waterways. It should be noted that the implementation of such accounting also allows you to streamline the classification of types of land plots that are used in the process of functioning of an agricultural enterprise. Land accounting in agricultural enterprises is one of the types of on-farm accounting.

The land of an agricultural enterprise is an object of fixed assets, and taking into account the peculiarities of the reproduction and use of this asset, the methodology for their accounting has a number of features [34-40].

Recall that for accounting purposes, the appropriate classification is used based on the approved types of land plots:

- agricultural lands (include perennial plantations, arable lands, pastures, hayfields, etc.);
- lands under reclamation construction;

- lands in the stage of restoration of fertility;
- tree and shrub plantations (include shelterbelts, other protective forest plantations, tree and shrub vegetation on agricultural lands);
- under roads to industrial buildings and lands;
- under water arteries (include land under irrigation canals, under man-made ponds, etc.) [41-49].

In turn, in the management accounting of an agricultural enterprise, land plots are classified as plots "Gardens", "Vineyard", "Fruit nursery", "Plantation", "Plots of transhumance", "Pastures", "Hay plots", "Ponds". "Irrigation canals", "Shelterbelt", "Perennial plantations", "Fallow", "Access roads", etc. In accounting, you can create other sub-accounts with different names, depending on the specialization of the existing agricultural enterprise [50-53].

Land lands cannot be used for profit and use in the course of the current activities of an agricultural enterprise without appropriate investments in them. These costs include the costs of depletion protection procedures, fertility improvement procedures, ravine protection procedures, desertification protection procedures, access roads repair procedures, artificial and natural reservoirs waterlogging protection procedures, as well as irrigation canals. These costs can be both capital and current [54-60].

Also, agricultural enterprises make capital investments that increase the value of land plots, which are presented in the form of expenses for draining land, for irrigating land, for reconstructing irrigation canals, and watering pastures. These expenses increase the cost of land plots of an economic entity [61-63].

In accordance with the current Order of the Ministry of Agriculture of the Russian Federation of June 19, 2002 N 559 "On Approval of Methodological Recommendations for Accounting for Fixed Assets of Agricultural Organizations", account 08 "Investments in non-current assets" and account 01 "Fixed assets" in conjunction with the relevant sub-accounts. Lands assigned to agricultural organizations, which are transferred by the state for their use, are accounted for by agricultural organizations on the off-balance account "Land lands".

They are analytically recorded in hectares by type of land (arable land, fallows, hayfields, orchards, vineyards, shelterbelts, lakes, ponds, homestead land, other lands not used for agricultural purposes). All these indicators are reflected in the land cadastral book of the organization.

It should be noted that the maintenance of sub-accounts in the context of the types of land plots of an agricultural enterprise makes it possible to obtain reliable information about the availability and value of these assets. However, despite the approved rules for keeping records of these assets, in practice there are a lot of difficulties.

One of them is a large range of analytical accounts, but at the same time there is a problem with the transfer of land plots from one category to another, the issue of timely registration of a change in the category of a land plot, as well as a gap between cadastral and accounting data. The transition of land plots from one category to another occurs quite often, because. this is due to a change in the nature of their use or a change in the direction of the business entity. So in the territory of the Russian Federation there are a lot of large agricultural holdings that are constantly expanding the categories of land plots for various purposes. An example is such enterprises as the Miratorg Group of Companies, the Belaya Dolina Group of Companies, the Sady Pridonya Group of Companies, etc. So the Belaya Dolina Group of Companies is engaged in agricultural production and food production. Over the past ten years, the company has carried out not only the cultivation of grain crops, but also began to produce fruits and vegetables, as well as engage in dairy and meat animal husbandry. Most of the produced agricultural products are used for processing and food production at the enterprises of this company, and the surplus is sold to third parties. This

experience was borrowed from large international companies that started as food producers, and not to depend on the quality and limited supply of raw materials, began to grow it themselves.

So, let's return to the consideration of the problem of the gap in time and the procedure for recognizing the categories of plots of an agricultural enterprise when changing its purpose for use.

The following example serves as an example of this: in LLC Commodity Farming, part of the land plot on which the pasture was previously located was used to create a shelterbelt in order to prevent weathering of the fertile layer, as well as the formation of ravines. The decision to transfer part of the land plot from the category "Pasture" was made by the head of the enterprise in the first quarter of the reporting year. The very process of creating a shelterbelt can only begin with the beginning of the cultivation season, namely in April, and includes plowing the soil, introducing the necessary microelements, irrigating the soil, acquiring and planting shrubs and trees. At the same time, it is worth remembering that in order to recognize this area as a shelterbelt, it is necessary that the protective plantings reach the appropriate size and height. And this is not one year, but an average of 3-4 years, for the formation of minimal protection. In this case, plantings can die from natural fire or from drought. Thus, a question of a methodological nature arises, at what point to consider that capital investments in the creation of a shelterbelt are completed and, accordingly, it is possible to transfer the amount of the generated value of this fixed asset from account 08 "Investments in non-current assets" to account 01 "Fixed assets" sub-account "Land plots" sub-account of the 2nd order "Shelter belts". Also, the question still arises when to submit an application to the relevant department for making changes to the cadastral registration, in order to change the designation of the land plot from the category "Pastures" to the category "Shelterbelts".

The next problem in the accounting of land plots in the accounting of agricultural enterprises is the conduct of a reliable inventory. Difficulties arise here for the following reasons:

- firstly, the diversity of land plots of various categories in agricultural enterprises leads to a distortion of their number;
- secondly, discrepancies between the cadastral and accounting data of land plots, which leads not only to distortions in the reliability of accounting, but threatens with penalties due to violation of the rules of cadastral registration;
- thirdly, the large territorial remoteness of many land plots from each other and their diversity in use, for example, Miratorg Group, according to information compiled by the consulting company BEFL, in 2019 became the largest land owner in the Russian Federation as an agricultural holding. The size of its land bank is more than 1 million hectares. At the same time, these sites are located in more than five regions of the Russian Federation. Today, the top three largest owners of land plots among agricultural holdings, in addition to Miratorg Group, also include Prodimex Group and Agrokultura Group. In order to carry out an inventory, accounting employees will have to carry it out in this case in several stages in order to meet the period established for the annual inventory or to carry it out by several inventory commissions. Undoubtedly, in other not so large agricultural enterprises, where land resources are not as large as those mentioned above, their inventory will be less laborious, but nevertheless it will also require a lot of time and labor on the part of the accounting department of the enterprise.

There is also the problem of the complexity of filling out primary documents for registering land plots, as well as entering data on the size and types of capital investments to improve their properties.

In practice, land plots divided into shares may be included in the composition of the land bank of an agricultural enterprise. In accordance with the requirements of the current

legislation in the field of accounting in agricultural enterprises, these shares are accounted for by name, in accordance with the available documents confirming the right to own them. In this case, the owner of the land share may sell or transfer it to other land users. The agricultural organization or its employee has the preferential right to acquire this land share with the obligatory registration of the transaction in this agricultural organization. Often during the inventory it turns out that the new owners of land shares do not always notify the agricultural enterprise in time about their registration actions with these land plots, which creates prerequisites for the occurrence of distortions in the quantitative and monetary measurement of these assets.

The reform of accounting, which is currently being carried out in the Russian Federation, is associated with the introduction of IFRS and influences the formation of a future methodology for accounting for land resources as assets of an economic entity. To date, the replacement of existing PBUs in the Russian Federation has not been legislatively completed, while transitional provisions are being developed.

Standards 16 and 41 are used to account for land plots in IFRS. These two standards are applied in practice simultaneously. In Russian accounting, land plots are accounted for in accordance with PBU 6/01, but in accordance with the requirements of IFRS, this type of asset is taken into account not only as an "object of fixed assets", but also as a "Biological asset" used in agriculture. It is also worth noting that for Russian accountants it is difficult to apply the principle of "fair value", which is established as one of several fixed assets used in accounting, including land plots. Fair value is understood as an appraisal, which is determined by a professional accredited appraiser based on confirmed market prices for a given category of land in a given region. Because Since the market value of land plots can fluctuate significantly, enterprises have to annually re-evaluate the value of this type of asset, which requires high costs and prudence in choosing an appraiser.

## 4 Conclusion

All of the above methodological difficulties that arise in practice in the work of accounting services in the course of organizing and maintaining records of land plots of enterprises in the agricultural sector can be resolved in the course of the formation of an annually issued order on accounting policy. It is in this internal regulatory document that it is possible to provide for all the features of keeping records of land plots in a particular agricultural enterprise, which will improve the analytical quality of accounting, its timeliness and reliability.

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