

## Article

# The Theory of Agriculture Multifunctionality on the Example of Private Households

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**Abstract:** Having appeared in the European Union, the multifunctionality theory was quickly appreciated in most countries of the world. It determines the role of agriculture and its structural elements in the modern economy. This article is aimed at studying the multifunctionality theory in Russia. This study was conducted on the example of private farms in the Samara region by the authors' classification and identifying their main functions can serve as the basis for a system of their state support. To process the study results, absolute, relative, and average values were used, as well as a regression analysis with the help of the STATISTICA package. The research results are presented in tabular and graphical forms. The growth of production volumes does not lead to an increase in the share of households according to total volume in the case of a steady trend. The impact of all factors on the indicator, except for the production volume amount, results in a 2.272% decrease in the proportion of household plots in the total volume of agricultural regional production annually. It was found that the parameters of households depend mainly not on the geographical location within the region but on the size of the settlements in which they are located. The research result shows that the main focus of state regulation for private farms should be aimed at their support in small settlements, thus ensuring a quick return on invested budget funds. The outcome of the multifunctionality theory in practice should be the strengthening of state support for private farms.

**Keywords:** agriculture; multifunctionality; private households; state regulation; classification; qualitative and quantitative functions



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## 1. Introduction

Among the latest theoretical studies that have had a significant impact on the development of state regulation theory in agriculture, a special place is occupied by the concept of "multifunctionality" and its practical application in countries with developed economies [1].

The "multifunctionality" concept implies that agriculture should be considered not only from the standpoint of crop production and animal husbandry but from a wide range, taking into account social and environmental aspects [2,3].

At the same time, the multifunctionality concept in agriculture is ambiguous for all types of agricultural producers. In Russia, there is still a special type of producer—private farm households, which, unlike agricultural enterprises and peasant farms, are not commercial, but consumerist in nature (in accordance with the law). Accordingly, the set of functions related to this production form will differ from the standard one. At the same time, the role of private households in agricultural production is still great. In Russia,

the share of households did not fall below 50% until 2005, and for the last 10 years, it has fluctuated around 30%.

Private farms (in their modern form) began in the early 1930s as one of the conditions for the socialization of agricultural production in the USSR [4]. A part of the peasant economy was allocated which remained outside the joint property of collective farmers (a personal plot, livestock, poultry, etc.) [5]. Subsequently, households turned out to be a way to survive in crisis situations (the drought of 1936, the Great Patriotic War, and the 1990s) [6,7]. Despite the role of private households in crisis conditions, the great importance of this sector remained for a long period. This is largely due to the conservatism of the rural population, which prefers to keep those income-generating sources that have worked well in difficult times. Even now, despite the income growth and the possibility of alternative employment, private farms retain their importance, and their role is declining very slowly.

Agricultural production is not only a branch of the production system but also performs a number of socially important functions. As a rule, the performance of these functions is associated not so much with the high profitability of agricultural production (in many industries, it is much higher) but with its significant territorial distribution. Most of these activities are costly and do not pay off from an economic point of view. However, their funding is constantly increasing, which is explained by their importance.

According to A. Petrikov, to characterize agriculture's multifunctionality, one can use the analytical apparatus of the consumer choice theory, since society makes a choice by determining a set of certain amounts of goods "X" (agricultural production) and goods "Y" (public goods). It all depends on the preferences of society and the relative value of goods [8].

The official position of the European Union is that agriculture, in addition to food production, has a number of additional social functions. It also participates in sustainably expanded reproduction, in the management of natural resources and environmental protection, and in maintaining a balance of income between agricultural producers and representatives of other industries. This is called multifunctionality [9].

According to E. Krylatykh and O. Strokova, there are disputes over the term "multifunctionality" in connection with different interpretations of the text of the Agreement on Agriculture of the World Trade Organization, which refers to non-trade aspects in the continuous process of reforms. The preamble to the Agreement on Agriculture refers to food security and the need to protect the environment, but a clear and complete definition of this term is not given [10].

The concept of the agricultural sector's multifunctionality has a long history. Article 33.2 of the Agreement Establishing the European Union states:

When developing a common agricultural policy and special methods of its application, it is necessary to take into account:

(a) the special nature of agricultural activities, which results from the social structure of agriculture, as well as from the structural and natural heterogeneity of various agricultural regions [9,11].

If we consider the agrarian legislation of any European country, we can find similar references to the multifunctionality of agriculture. The idea that agriculture has a special nature, different from other sectors of the economy, is the basis of a common agricultural policy.

In this regard, it is very important to study the origin of the concept of multifunctionality. According to the classification of E. Krylatykh and O. Strokova, it consists of several stages, and each of them is characterized by the list of functions performed and their priority [10].

From the mid-1940s to the end of the 1970s, the main task of developed countries was to increase agricultural production, so the state stimulated the volume growth of manufactured products.

In the 1980s, food security was on the agenda.

From the late 1980s to the early 1990s, environmental protection and sustainable development of agriculture were becoming priority tasks of agricultural policy.

Only since the late 1990s were all these tasks combined into a single concept of multifunctionality.

However, in the context of international trade, there were radically opposite solutions for linking these issues within the framework of a common policy. WTO members are divided into two opposing camps on this issue. Defenders of the idea of multifunctionality are most often countries with the highest level of government support for agricultural producers. These include the EU countries, Japan, South Korea, Switzerland, and Norway. Their opponents on this issue are the United States and the Kern Group countries [12].

One of the main performers in the development of the multifunctionality concept was the United Nations Food and Agriculture Organization (FAO). The work of FAO and other international organizations, initiated in the 1970s, led to the aforementioned concept of Sustainable Agriculture and Rural Development (SARD).

Over time, this concept had more complete forms, and through the efforts of FAO, it has developed into a concept called the “Multifunctional nature of agriculture and land” (MFCAL). The latter differs from the previous one in that it considers broader links between agriculture and the economy as a whole, the relationship between agriculture and other land users, and dynamic contacts between rural and urban areas.

The concept of MFCAL was formulated at the FAO conference in the Netherlands in September 1999.

In Russian scientific papers, the concept of “multifunctionality of agriculture” often includes the concept of “socio-environmentally-economically efficient agriculture”.

The multifunctionality of agriculture means that its functions are not limited to agricultural production but are a source of public goods [13].

There are several classifications of agricultural functions.

S. Zhdanov refers to the main functions of agriculture as follows:

- Production function. The rural population is a supplier of labor resources for agricultural production. The efficiency of this sector of the national economy and the provision of the country’s food security depend on their quality;
- Environmental protection–preservation and improvement of the ecological environment, control over the state of forests adjacent to rural settlements, water sources, and their flora and fauna;
- Spatial communication ensuring high-quality and timely maintenance of transport, electrically conductive, telephone, and other communications;
- Control over the territory. Due to the disappearance of small settlements and villages, control over the territories is gradually being lost, which can lead to the intensification of their spontaneous capture by border states;
- Socio-cultural function: the rural population is the custodian of many folk traditions, rituals, original art, and art crafts [14].

According to A. Altukhov, agricultural production (as a system) performs at least three important interacting functions: economic formation of developed agri-food markets, reliable food supply for the population, development of effective sustainable agro-industrial production; social regulation of the rural sphere of life; and ecological and biologically expanded reproduction of soil fertility and productivity of agricultural plants and animals, and environmental protection [15].

According to Semenov, the main functions are:

1. Food security;
2. Environmental;
3. Economic (industrial);
4. Social [13].

For each individual country, the multifunctionality of agriculture has its own specific content. For many countries, the multifunctionality benefits are the preservation of the tra-

ditional lifestyle, protection from natural disasters, nature conservation, land conservation, prevention of floods, soil erosion, and landslides, conservation of water resources, food security, preservation of villages and village architecture, cultural heritage preservation, the possibility for open-air recreation, health improvement, etc.

A significant contribution to the development of the Russian research school of multifunctionality was made by T.I. Zaslavskaya, who formulated the “national economic functions of the village”, such as:

- Production function;
- Socio-demographic function;
- Cultural function;
- Recreational function;
- Spatial communication function;
- The function of social control over the territory [13].

A. Petrikov completes the reviewed list. Firstly, agricultural products are used to produce substitutes for petroleum products (ethanol and biodiesel), and secondly, as a result of agricultural activities, additional public benefits are provided, social control over vast territories is ensured, the traditional culture of society is reproduced, and the historical landscape and biodiversity in agrocenoses are preserved. As a result, the geopolitical position of the country is being strengthened and conditions are being created to meet the socio-spiritual and recreational needs of society [8].

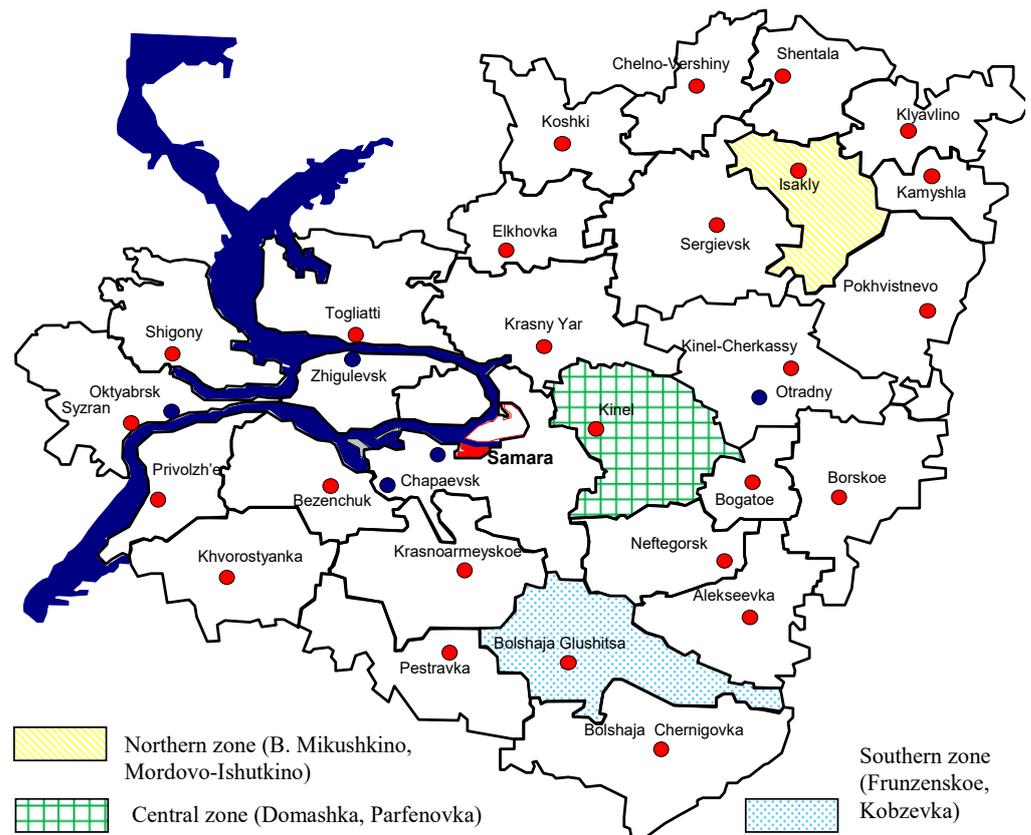
The study’s purpose is to determine the list of functions performed by private farms, identify their unique character, and justify the increasing role of private households in of state support system. The aim of this study is to conduct the following tasks: study the features of private farms as a form of agricultural production; evaluate the classification features of private households depending on their location, opportunities for obtaining alternative income, and other factors; and identify a set of quantitative factors of private households that can be used to formalize the amount of state support for this production form.

## 2. Materials and Methods

This study’s object is the application of the multifunctionality theory in the state regulation of agricultural production in the example of private farms. The methodological basis of this study was Russian and foreign scientists’ works devoted to the issues of state support for the agro-industrial complex, and the characteristics of private farm households as a form of agricultural production. Abstract-logical, monographic, and economic-statistical methods were used in the research process.

The assessment results of private households were carried out on the basis of household books of the Samara region inhabitants (The Middle Volga region) for 2006–2020. Subsequently, they were subjected to statistical processing to ensure the possibility of their comparison. In the study course, more than two thousand private farms were surveyed, which is about 1% of the total number in the Samara region.

In each natural economic zone (north, central, and south) (Figure 1) of the Samara region, two settlements were surveyed: in the south—Kobzevka and Frunzenskoe (Bolsheglushitsky district); in central—Parfenovka and Domashka (Kinelsky district); in the north—Mordovo-Ishutkino and B. Mikushkino (Isaklinsky district) [16,17]. The choice of these settlements was for the following reasons: they are located in the center of the respective zones, far from large cities. In addition, Kobzevka, Parfenovka, and Mordovo-Ishutkino are small settlements in which employment is possible only in an agricultural enterprise, and the main product markets are outside the settlement. Other villages (Frunzenskoe, Domashka, and B. Mikushkino) are larger settlements and are located at a distance of no more than 50 km from the first. They are also characterized by the possibility of employment in non-agricultural enterprises; a more developed infrastructure of the village, the produced food can be sold within the settlement to customers who do not work in agriculture [18,19].



**Figure 1.** Location of the studied private farms on the map of the Samara region.

In each settlement, 100% of private farms were surveyed.

Since these are time series data, there is a possibility that a trend can create a spurious correlation between indicators that can result in the wrong statistical inference [20]. In building the regression equation, to remove the linear trend from two time series, we propose to include time as an independent variable:

$$y_t = a + bx + ct + et$$

Regression parameters were calculated by the STATISTICA package. The research results are presented in tabular and graphical forms [21].

### 3. Results

In addition to agriculture as a whole, the economic papers also discuss the functions of its individual components, which are integral elements of agricultural production.

For example, in the Russian agricultural economy, the sector of private subsidiary plots plays a significant role. Formed in Soviet times, it still occupies a large share of agricultural production. Despite the complete absence of state support (unlike other forms of production), the production volume in this sector is increasing year by year. If in 2006 the households of the population of the Samara region produced goods worth 17.3 billion rubles, then in 2020, they would be worth 41.8 billion rubles [22]. At the same time, the share of household plots in the total volume of agricultural regional production is declining (Figure 2).

We shall assess the production volume on the share of household plots. In building the regression equation, to remove the linear trend from two time series, we include time as an independent variable (Table 1).

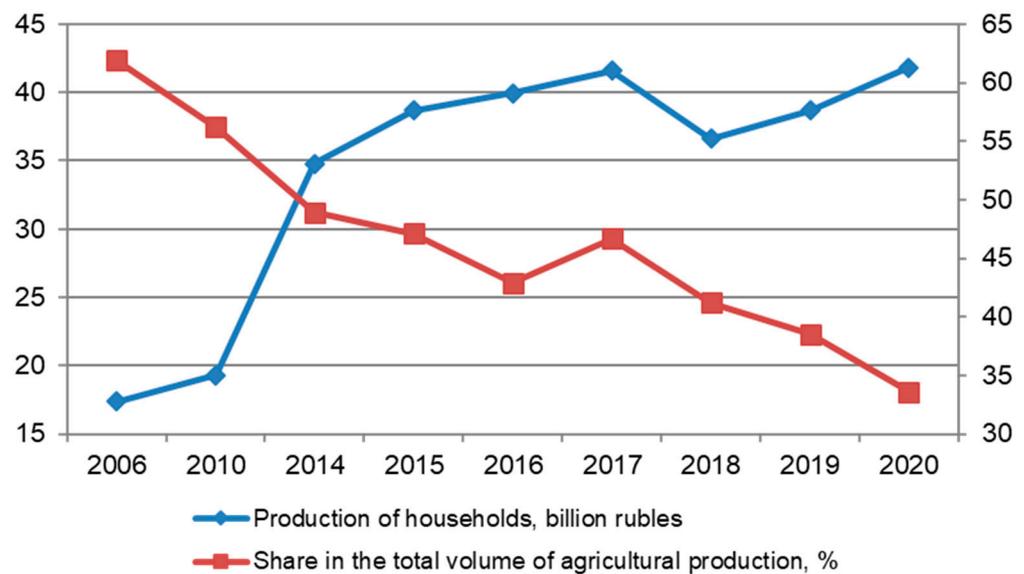


Figure 2. Agricultural products in the households of the Samara region population.

Table 1. Parameters of regression equation \*.

Regression Equation Coefficient	Coefficient Value	Standard Deviation of Regression Coefficient	t-Test	p-Value
a	67.371	3.6222	18.599	0.0000
b	0.000	0.0002	1.855	0.0101
c	-2.272	0.5175	-4.391	0.0046

Note:  $R^2 = 0.942$ ;  $F = 48.342$ ;  $p = 0.0002$ ;  $dw = 1.73$ ; \* Calculated by authors using the STATISTICA package.

Parameter «b» characterizes that the growth of production volumes does not lead to an increase in the share of households according to the total volume in the case of a steady trend.

The «c» parameter shows that the impact of all factors on the indicator except for the production volume amount results in a 2.272% decrease in the proportion of household plots in the total volume of regional agricultural production annually.

In this study, data were obtained from a part of the households of the Samara region's nature-economic zones and small settlements for the period from 2009 to 2018. According to the earlier considered classification, the following results were obtained for Kobzevka, Parfenovka, and Mordovo-Ishutkino.

During the study period, there was an increase in commercial private farm households (Figure 3).

If in the period from 2009 to 2013, the share of commercial private household plots was 47.5% in Kobzevka, 24.8% in Parfenovka, and 23.5% in Mordovo-Ishutkino. Then, in the period from 2014 to 2018, this share became 49.7%, 42.8%, and 50.4%, respectively. The trend towards an increase in the share of commercial households is associated with very limited employment opportunities in rural areas, low wages in agricultural enterprises, etc.

In terms of livestock, there are significant differences between the three zones in 2014 and 2018. In Kobzevka and Mordovo-Ishutkino, there are a lot of private household plots with cattle and pigs, accounting for 32.5% and 43.2%, respectively. This is due to the fact that Kobzevka has the largest share of unemployed people (24.3%), and livestock products become the main income for private plot owners. As for Mordovo-Ishutkino, it may be explained by the greater share of private farm members employed in an agricultural enterprise (36.0%) and having access to the resources of former collective and state farms (Figures 4 and 5). In Parfenovka, this share is 11.4%, which is associated with a large

number of pensioners (42.4%) who cannot keep animals for various reasons, and there is a small number of farm owners employed in an agricultural enterprise (20.3%). In Kobzevka, Parfenovka, and Mordovo-Ishutkino, shares of private households without livestock are 32.5%, 40.3%, and 37.4%, respectively.

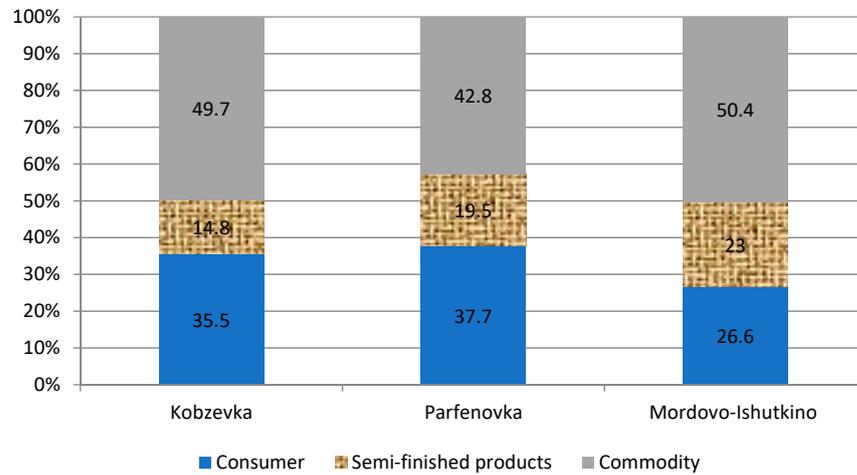


Figure 3. Comparison of private households by the marketability level in 2014–2018.

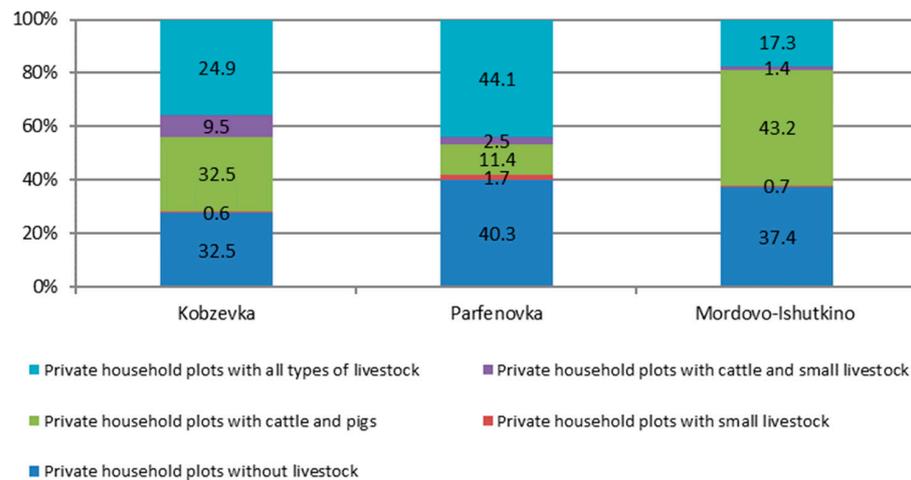


Figure 4. Comparison of private household plots by livestock availability in 2014–2018.

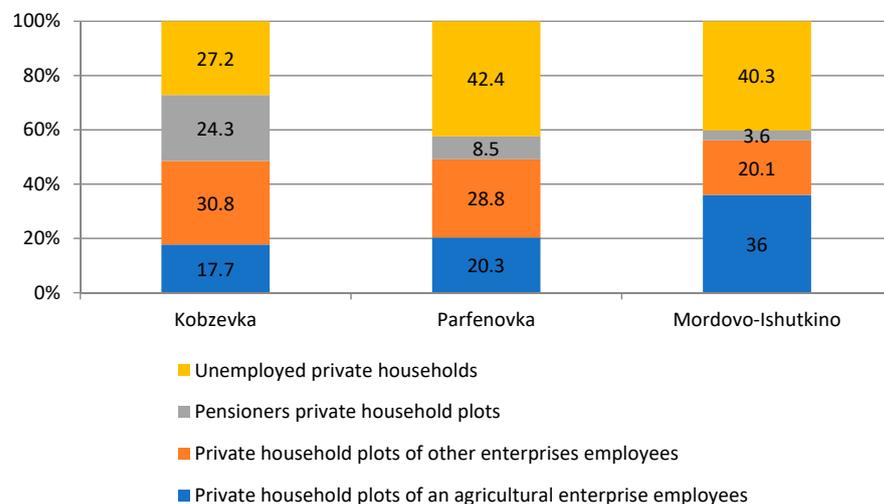
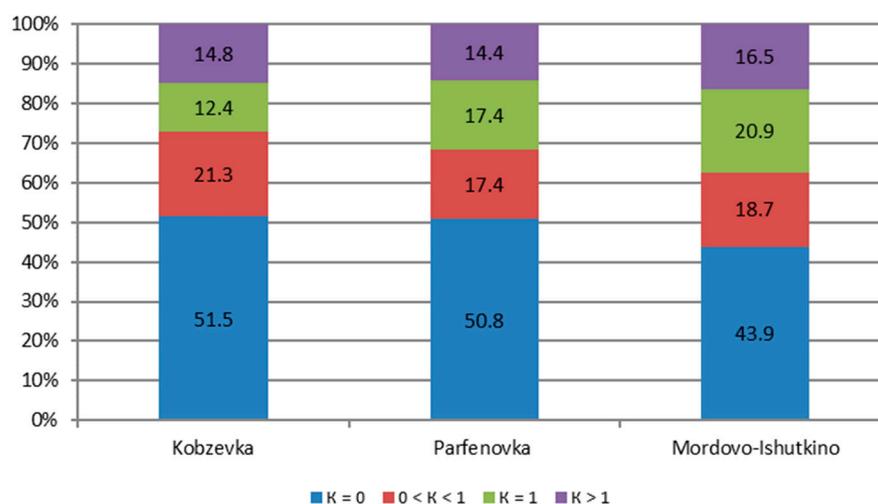


Figure 5. Comparison of private household plots by owners' employment in 2014–2018.

According to the type of private farm owners' employment in the considered nature-economic zones, changes have occurred during the study period. So, if for the first five years (2009–2013) the share of agricultural enterprise workers having household plots in Kobzevka, Parfenovka, and Mordovo-Ishutkino was 48.1%, 27.1%, and 42.2%, respectively, then for the second five years (2014–2018) the share of these private household plots was 17.7%, 20.3%, and 36.0%, respectively. This is due to the new alternative employment possibility outside the settlement (Figure 5).

The share of other enterprise's employees who have household plots for five years (2014–2018) compared to 2009–2013, on the contrary, increased in each of the settlements by 17.2% (Kobzevka), 10.2% (Parfenovka), and 5.8% (Mordovo-Ishutkino). In Kobzevka and Mordovo-Ishutkino, a significant number of private farm owners work in Samara (approximately 14% and 9%, respectively), Parfenovka in Samara, and Parfenovsky secondary school (about 7% each). In Kobzevka, the number of unemployed people doubled in the period from 2014 to 2018 (24.3%) compared to 2009–2013 (11.5%). This is primarily due to the increased number of migrants. The number of pensioners having private household plots increased in Kobzevka and Mordovo-Ishutkino by 0.4% and 2.5%, respectively. In Parfenovka, there is a 5.7% decrease in this type of private farm owner. The decrease in the share of pensioners' private households in Parfenovka happened mainly as a result of a decrease in the number of pensioners.

Comparing the ratio of employed and unemployed owners' numbers of private household plots by nature-economic zones, the following results were obtained. In Kobzevka for the period 2014–2018, there is the largest share of private household plots completely consisting of unemployed members—51.5% (Figure 6), which is 13.2% more than in the period from 2009 to 2013. This is due to an increase in the unemployed number in this settlement.

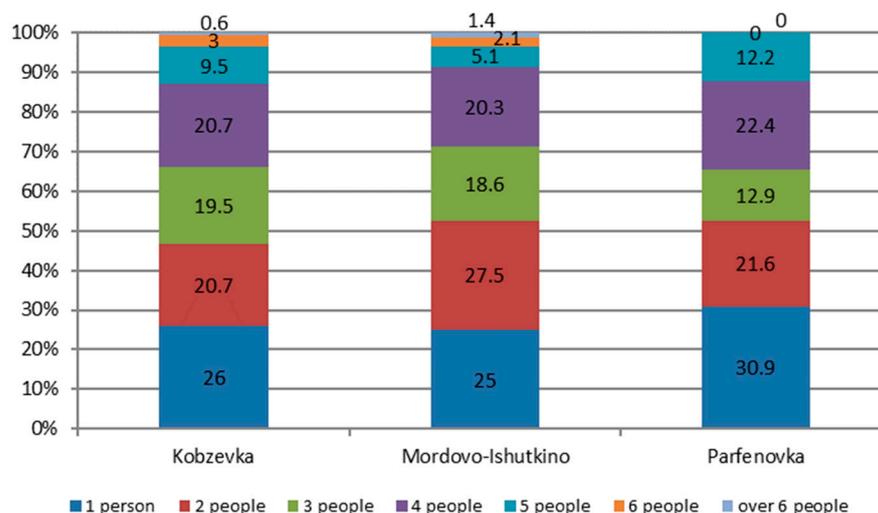


**Figure 6.** Comparison of private household plots in relation to the number of employed and unemployed members in 2014–2018.

In Parfenovka, the private household plots share entirely consisting of unemployed members decreased by 0.7% (50.8%), and the number decreased compared to 2009–2013 by 3.1%. This is mainly due to a decrease in the number of pensioners. In Mordovo-Ishutkino, this share is 7.6% less (43.9%), and the number increased compared to 2009–2013 by 0.9%. This is mainly due to an increase in the number of pensioners. The household plots share with the number of dependents exceeding the number of employees is 21.3% in Kobzevka and 18.7% in Mordovo-Ishutkino. This indicator may be due to the fact that in these settlements there is a significant number of families consisting of four and five people (20.7% and 9.5% in Kobzevka, and 22.3% and 12.2% in Mordovo-Ishutkino).

If the qualitative composition of private household plots in the northern, central, and southern zones is characterized by the data in Figures 3 and 4 (the number of economically

active populations), then Figure 7 gives an idea of the quantitative potential labor resources in individual families.



**Figure 7.** Comparison of private household plots by their quantitative composition in 2014–2018.

In Kobzevka for the period 2014–2018, families of three or more people were predominant, and they account for 53.3%. In 2009–2013, families in this category also predominate here (55.8%). In Parfenovka in 2014–2018, a large share is occupied by families of one and two people at 52.5% (56.6% for the period 2009–2013), and in Mordovo-Ishutkino, 52.5% is occupied by families of one or two people (51.8% for the period of 2009–2013).

The presence of various equipment types on farms indirectly indicates their marketability (Figure 8). If we consider the number of households that have equipment for transporting people, as well as several types of equipment, then it roughly corresponds to the number of commercial farms [23,24]. This is especially true for Parfenovka—41.9% and 42.8%, respectively (Central zone). For the period from 2014 to 2018 compared to 2009–2013, the number of private farms with equipment for transporting people increased in Parfenovka and Mordovo-Ishutkino by 16.9% and 21.0%, respectively. The main reason for this may be the increase of commercial farms in these settlements by 18.0% and 26.9%, respectively. In addition, there is a reduction in private households with tillage equipment in Parfenovka by 4.5% and in Mordovo-Ishutkino by 5.0%. This may be because the equipment was mainly transferred to private farms because of agricultural enterprises' property privatization, and over time it completely deteriorated.

During the study, data were obtained on a part of private farms in larger settlements and nature-economic zones of the Samara region for the period from 2014 to 2018. According to the earlier considered classification, the following results were obtained for Frunzenskoe, Domashka, and B. Mikushkino.

The largest share falls on consumer private household plots of 84.6%, 65.9%, and 55.7% in Frunzenskoe, Domashka, and B. Mikushkino respectively. This is mainly due to the peculiarities of home ownership in these settlements (Figure 9). The share of commercial private household plots is 11.8% in Frunzenskoe, 19.9% in Domashka, and 27.4% in B. Mikushkino. The share of semi-commercial private household plots accounts for 3.5%, 14.1%, and 16.9% in Frunzenskoe, Domashka, and B. Mikushkino, respectively.

The following results were obtained on the livestock for the study period. In Frunzenskoye and Domashka, there are mainly private household plots without livestock (70.5 and 60.6% respectively), and in B. Mikushkino they account for 35.7% (Figure 10).

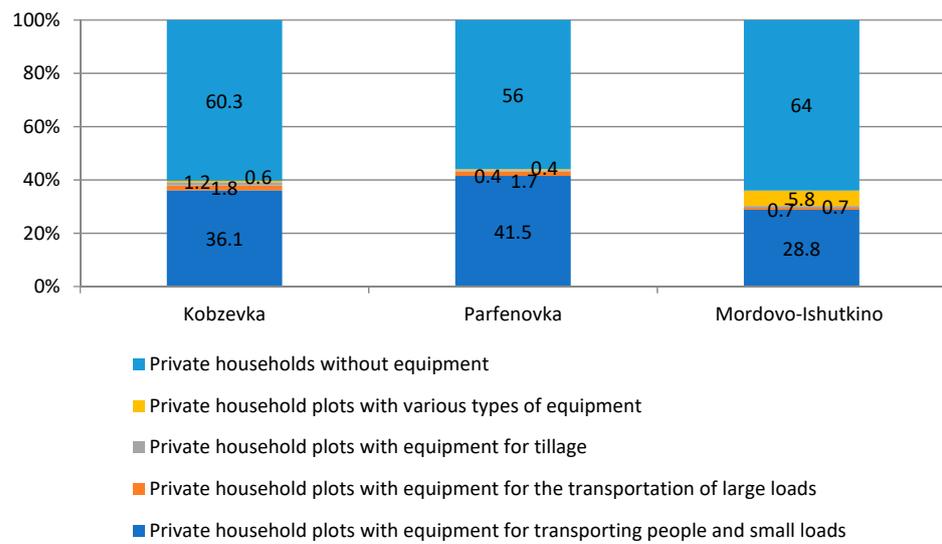


Figure 8. Comparison of private household plots by equipment in 2014–2018.

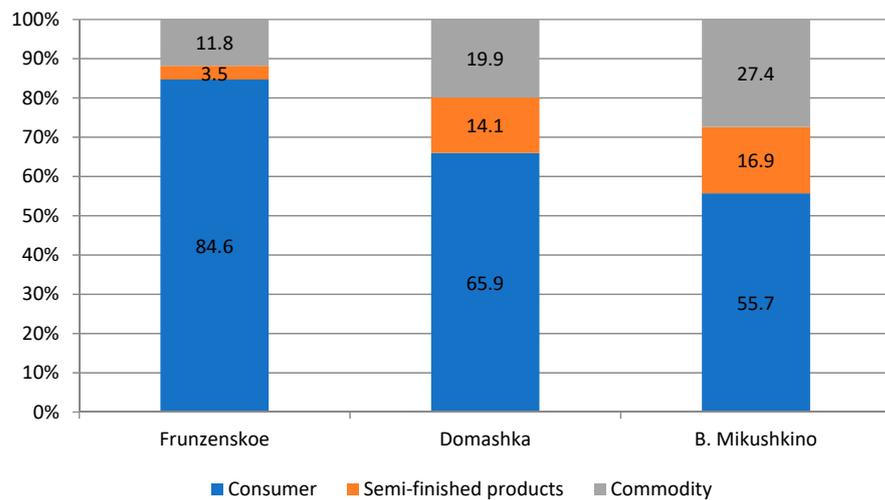


Figure 9. Comparison of private household plots by the level of marketability in 2014–2018.

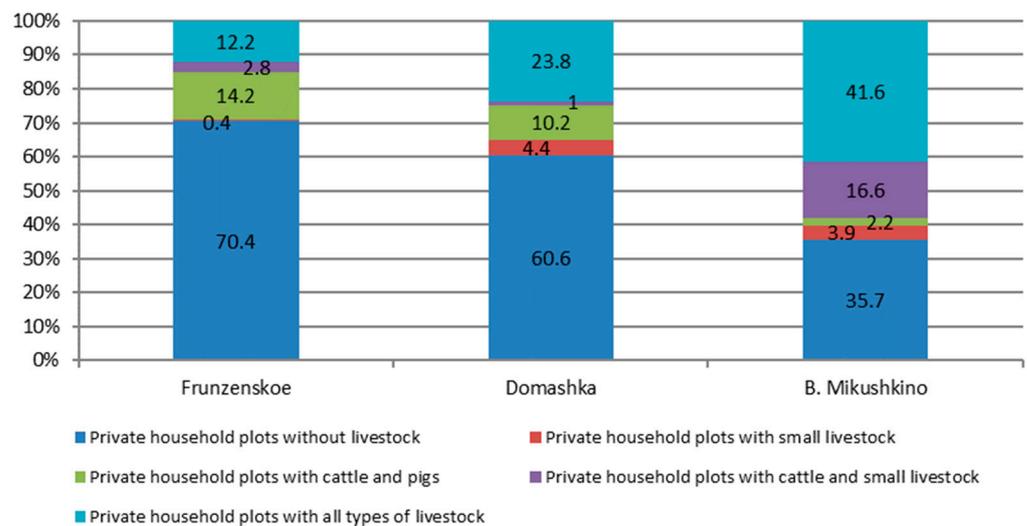
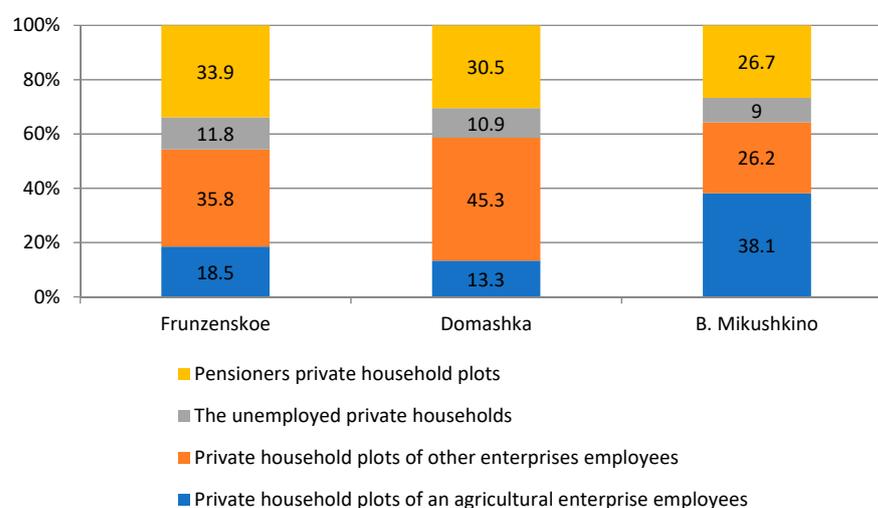


Figure 10. Comparison of private household plots by livestock.

This is mainly due to the fact that the owners of private households in these settlements live in apartments and do not have land for animals' barns, as well as a significant share of private farm members, who are not employed in agriculture and do not have access to feed. The share of farms with various livestock is 12.2% in Frunzenskoe, 23.8% in Domashka, and the largest share of farms with various livestock is in B. Mikushkino at 41.6%. This is due to the fact that in B. Mikushkino, private farm owners have different animals at once, providing themselves with various livestock products.

In the northern, central, and southern nature-economic zones, the smallest share is for the unemployed owners and is 9.0% in B. Mikushkino, 10.9% in Domashka, and 11.8% in Frunzenskoe (Figure 11). This is due to the great employment opportunities both in the agricultural enterprise and outside the agricultural sphere. In Frunzenskoye and Domashka, non-agricultural workers' private farms make up 35.8% and 45.3%, respectively. In B. Mikushkino, 38.1% falls on private farms of agricultural enterprise employees.



**Figure 11.** Comparison of private household plots by owners' employment in 2014–2018.

Comparing the number of private household plots of employed and unemployed members by nature-economic zones, the following results were obtained (Figure 12). Shares of private household plots, completely consisting of unemployed people, in Frunzenskoe, Domashka, and B. Mikushkino are 45.7%, 41.3%, and 35.7%, respectively. The private household plots share with the number of dependents exceeding the number of employees is 15.7%, 23.2%, and 21.5%, respectively.

The quantitative potential of labor resources in individual families is shown in Figure 13. In Frunzenskoye, there are more families of one or two people (53.6%). In Domashka and B. Mikushkino, there are more families of three or more people (57.8% and 56.4%, respectively).

In all villages, private farms without equipment prevail and account for 69.7%, 62.5%, and 68.5%, respectively, in Frunzenskoe, Domashka, and B. Mikushkino (Figure 14). Large shares also belong to private household plots with equipment for transportation and account for 25.6%, 32.9%, and 28.9%. This may be due to the significant proportion of private farm owners who are not employed in agriculture, where wages are much higher than in an agricultural enterprise. In B. Mikushkino, there are no private household plots with equipment for transporting goods. In Frunzenskoe and Domashka, the share of these farms is 2.0% and 1.6%, respectively. The number of household farms with tillage equipment is very low. The shares of this type of private farm are 1.6%, 1.7%, and 0.2%, respectively, in Frunzenskoe, Domashka, and B. Mikushkino.

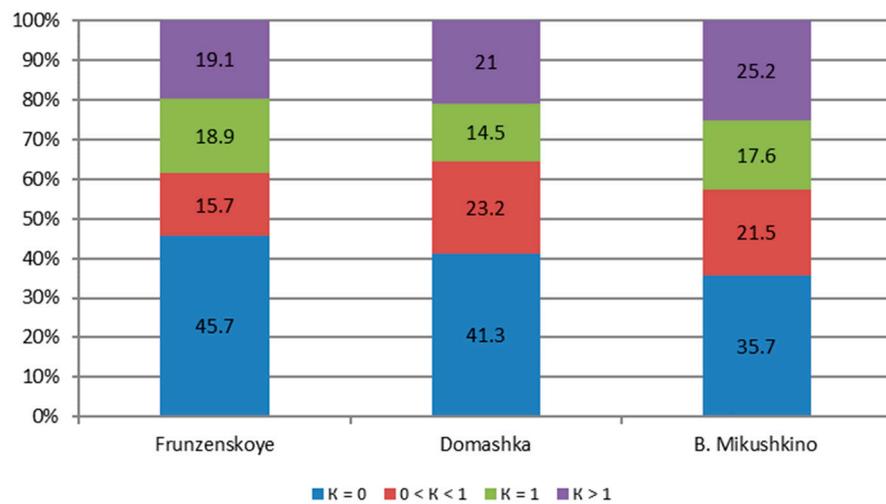


Figure 12. Comparison of private household plots in relation to the number of employed and unemployed members in 2014–2018.

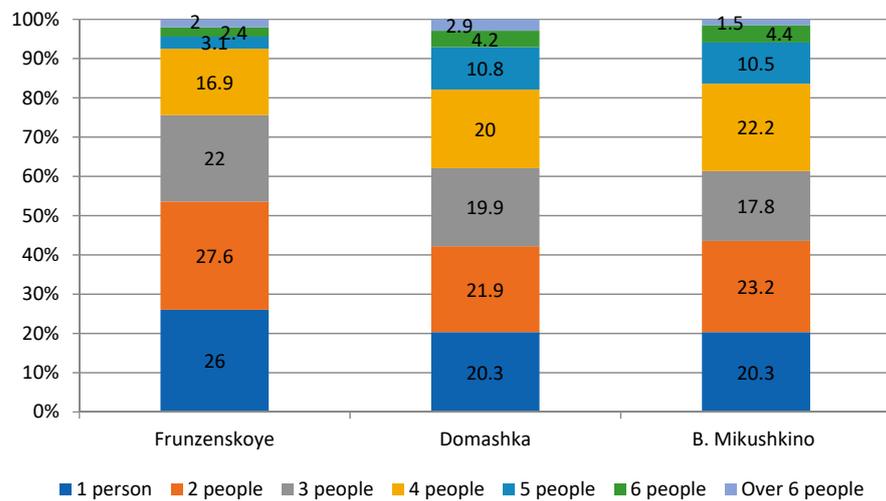


Figure 13. Comparison of private household plots by their quantitative composition in 2014–2018.

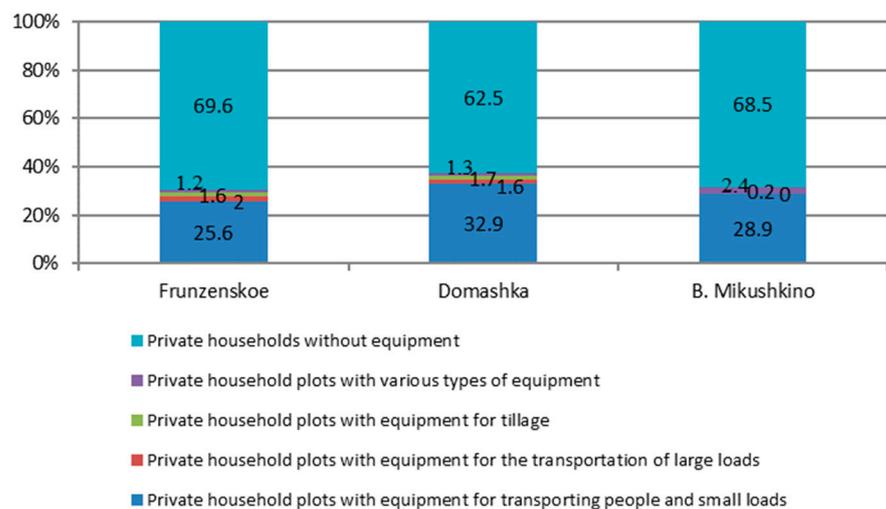
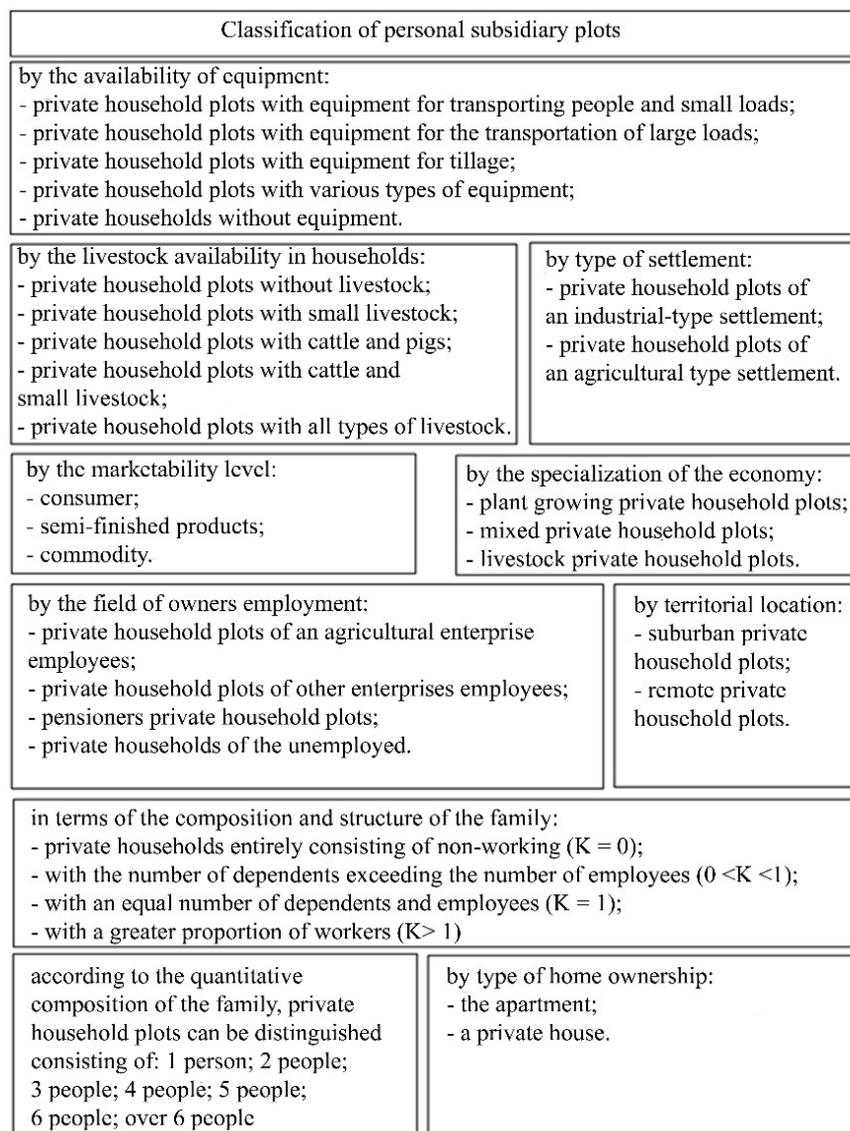


Figure 14. Comparison of private household plots by equipment.

#### 4. Discussion

As a result of the conducted research, there was a new classification of private farms, reflecting their features as a separate form of agricultural production in the conditions of the Russian Federation and as a separate object of the state regulation system in the agro-industrial complex. The classification is presented in Figure 15.



**Figure 15.** Refined classification of private household plots.

For private farms, there are four main groups of functions that can be distinguished. They are functions creating a system that affects almost all aspects of agricultural production as a whole.

1. Economic: the production of additional agricultural goods; raising the living standard; improving material security, including food; improving the food supply to the urban population, either through the sale of products on the market or through assistance to relatives; using labour resources and production means that are inaccessible to the public economy [25]; producing such goods that are inexpedient or impossible in large-scale production under specialized technologies; specializing in labour-intensive industries that are not yet mechanized; due to the master's approach and high quality of work, it allows to obtain more and better quality products per unit area; reducing the time loss moving to

the workplace [26]; and saving construction costs. This should be the basis for the future development of peasant (farm) enterprises;

2. Social: labour education and professional orientation of rural youth; farming is a means of self-expression of the rural population; provides an opportunity to show creativity; develops the skills of economical and efficient housekeeping; is a form of leisure activity [27,28]; recreational function; engaging in physical labour; consumption of fresh natural food; the function of a “stabilizer of socio-economic balance in rural society.” Thanks to private farms, social tension in rural areas is compensated, caused by a sharp differentiation in the incomes of certain population groups, unpaid wages of certain categories of workers, etc. These farms can provide their owners with certain social guarantees through the social insurance system. There is a practice in some regions where they do not register owners of private farms as unemployed [29,30];

3. Environmental: increased consumption of organic food; preservation of the diversity of animals and plants gene pool; allows for circulation and improves the quality of land resources; disposal of household waste that cannot be used by large-scale production; thanks to the small sizes, there is resistance to weather conditions; environmental function; the function of forest monitoring in rural settlements, water sources, etc. [31–37];

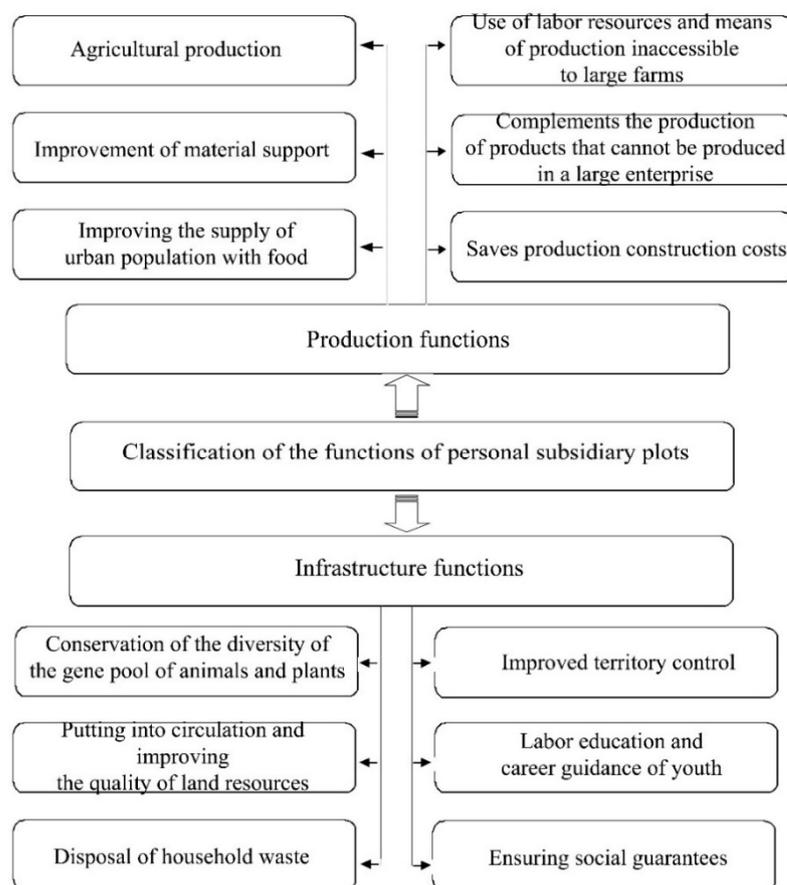
4. Others: the deterrent function of private households, which is in reducing the outflow of the rural population; the function of control over the territory—it is private household plots that most often become the first and only production form in sparsely populated areas; communication function. Private household plots initiate and finance the infrastructure and utilities (electricity, gas, and water supply); the rural population is the custodian of folk traditions, rituals, and original art [38–45].

The theory of multifunctionality in its practical application makes it possible to substantiate the amount of state support that should be directed to the development of private farms.

Based on the multifunctionality theory, the amount of state support for the organic development of a household should be no less than the amount of expenses for performing basic functions. It is advisable to divide this amount into two parts: production (directly related to the production of agricultural products in personal farms) and infrastructural (development of rural areas). For example, the set of allocated functions can be as follows (Figure 16).

In evaluating favourable function values at each moment of time, it is necessary to use a system of indicators, which should ultimately be evaluated in cost form. To do this, it is necessary to develop a system for the comparative evaluation of qualitative and quantitative functions.

Private farm households are the main producers of the most important types of agricultural products.



**Figure 16.** Classification of household functions.

## 5. Conclusions

Private farm households remain an important sector of the agrarian economy. At the same time, they are practically devoid of state support like other agricultural producers. To optimize the state support size and directions, it is necessary to take into account the peculiarities of both individual private household plots and the settlements in which they are located. In small settlements, commercial private farms predominate with a significant amount of livestock; they have a large number of private household plots, consisting entirely of unemployed members. In larger settlements, consumer private farms predominate with less livestock; owners of private farms are mainly employed outside agriculture. The farm provision with tillage equipment and transportation of goods in all settlements are very low. Therefore, the main emphasis of the state regulation should be aimed at supporting household activities, namely, small settlements with employment problems, and a quick return on the invested budgetary funds should be ensured.

The result of the application of the multifunctionality theory in practice should be the strengthening of state support for private farm households. Despite the equality declared in No. 112-FL with other organizational and legal forms of agricultural production, households still lack attention from the authorities. This is clearly evidenced by the following: of the 40 Procedures for the subsidies to agricultural producers included in the Decrees of the Samara Region Government No. 70 and 71, only one provides the possibility to subsidize household plots (compensation of the loan rate received from banks and credit unions).

Despite the consumer-oriented character, private households remain a significant sector of the agricultural economy. The unwillingness of the state to work with small market participants leads to a situation where private farms gradually reduce or completely stop agricultural production. Unlike large farms, private household plots practically

cannot restore production in the future, as the necessary skills are lost (especially in animal husbandry). Therefore, it is the multifunctionality theory and its basis that can help expand state support for farm households to maintain production volumes in such sectors as animal husbandry, and the production of fruits, berries, vegetables, and potatoes.

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