#### SOCIO-ECONOMIC QUESTIONS OF GEOGRAPHY

# Economic-Geographical Characteristics of the Development of Economic Entities Owned by the Population of the Republic of Buryatia

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Abstract—Using the economic entities owned and run by the population of the Republic of Buryatia as an example, we suggest methodological approaches in investigating the territorial and socioeconomic pattern of this economic set-up playing a leading role in agricultural production. An analysis is made of the main indicators of economic managing under contemporary socioeconomic conditions: structural differentiation of the sectors, marketability, diversification of income, and the contribution of the individual sectors to the formation of the gross domestic product. We investigate the significance of private subsidiary holdings as the source of income in kind and in cash.

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#### FORMULATION OF THE PROBLEM

A peculiar kind of socioeconomic set-up – economic entities owned by the population – emerged and received wide acceptance in the process of agrarian reform. The predecessors were private subsidiary holdings of rural residents, and the plots of lands owned by urban residents and used for fruit and vegetable farming to grow one's own important food supplies and increase one's family budget. Throughout the period of agrarian transformations the economic entities owned by the population have retained the leading role in agricultural production, forming the contemporary socioeconomic and territorial structure of the agrarian sector.

The economic entities of the population in Russia account for (in aggregate) 57% of the gross domestic product of agriculture [1]. In some regions, such as Zabaikal'skii krai and the Republic of Buryatia, this figure reaches 82 and 80%, respectively. The economic entities of the population constitute the only socioeconomic set-up which had increased agricultural production in the post-reform years.

Although one's own agricultural production is of significant importance for the well-being of Russian families, the existence of a sizable sector of self-sufficiency generates profound deformations in the labor market, and in the "official" economy. Active participation of millions of people in the manufacture of food products "for themselves", combined with an inadequate monetization of the subsistence economy and a low level of labor productivity, erodes the system of economic relations and contributes to its deformalization. The social magnitude of this phenomenon, the significance of economic entities

owned by the population of Russia, and also the national geographers' attention scarcity to the phenomenon dictate a need for intense economic-geographical research in this field.

#### INPUT DATA AND TECHNIQUE

National studies on the importance of private subsidiary holdings for the country's economy and sustainable living of rural families have been actively pursued since the 1970s when private agricultural production by households was officially "rehabilitated" [2, 3]. In most cases, contemporary publications are distinguished by a sectoral approach, analyze the social and economic aspects of the production process, and examine the formation and differentiation conditions of income, and the content and character of labor [4-7]. Less attention is given to special economic-geographical methods of research which cover in an integral manner the issues related to the territorial organization of economic entities owned by the population, the participation of citizens in the land reform, marketability of products, and to the specialization and importance of individual sectors in the formation of family budgets. Noteworthy is only a series of publications of T.G. Nefedova focusing on the influence of natural, social-cultural and ethnic factors and of the economic-geographical location upon the geography of individual economic entities owned by the population, and upon their interaction with collective enterprises [8, 9].

We chose a large-scale level of research. We shall examine the elements of the territorial and

socioeconomic structure, including those which emerged under the influence of the subsistence economy (utilization of land resources, differentiation of the sectors of plant-growing and livestock husbandry, self-sufficiency and marketability of products, and diversification of income), as well as the contribution from private subsidiary holdings to the well-being of families by using, as an example, the economic entities owned by the population of the Republic of Buryatia. The methodological difficulties of studying the socioeconomic set-up in agrogeography are due to the "closed" character characteristic for the subsistence economy, and to the informal nature of organizationaleconomic relations. For investigating the forms of adjustment of the economic entities owned by the population to the market conditions, working out recommendations for a further development of this sector, and for optimizing the socioeconomic and territorial structure of agriculture, we believe that it is necessary to include (in addition to analyzing statistical data) in our investigation the theoretical and methodological aspects that provide a more penetrating insight into the characteristic features of the subsistence economy and permit its regional specific character to be revealed. The theoretical and methodological groundwork for investigation was provided by the fundamental principles of economic theory, and by publications of national and foreign authors devoted to issues relating to peasant farming and the subsistence economy [10, 11].

The information base for our investigation includes data from the Federal Service of State Statistics, All-Russian Agricultural Census 2006 and from Municipal Districts of the Republic of Buryatia as well as registry book of economic entities for 2006–2009.

#### **DISCUSSION**

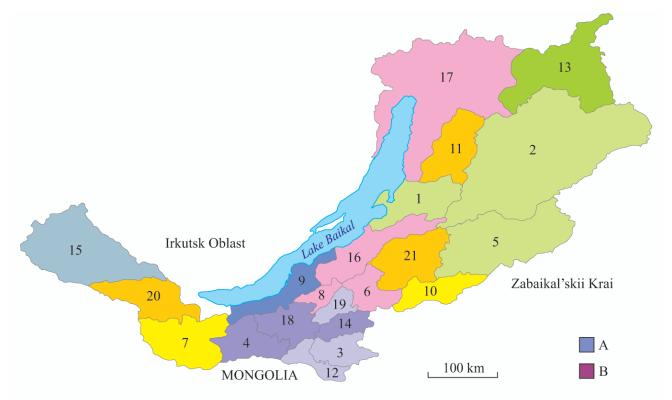
#### Land Resource Utilization

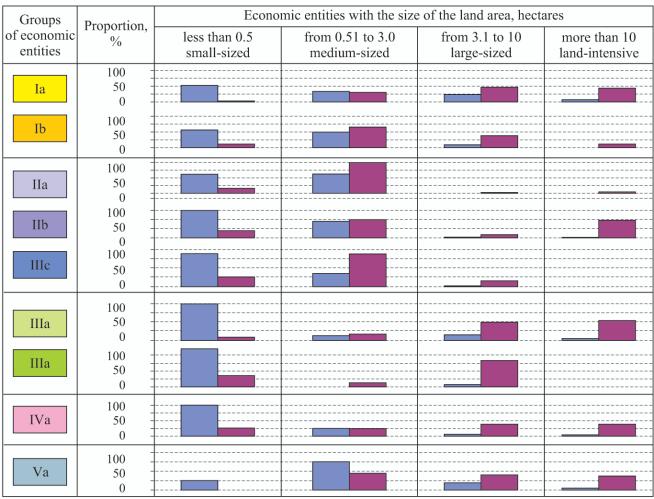
The proportion of the economic entities owned by the population in the total area of agricultural lands of the Republic of Buryatia constitutes 11%. Although, according to official data, the participation of citizens in land utilization is exceeded considerably by the indicators of agricultural organizations and farm enterprises, we must keep in mind that the economic entities owned by the population additionally use the lands of the settlements for hay-making and livestock pasturing. Many agricultural organizations permit their employees to use fields owned by collective farms to grow potatoes for personal needs. Agricultural organizations plow and prepare the land by themselves, because the economic entities owned by the population are too scantily equipped with farming implements, whereas planting, crop tending and sales of products are left to the population. Therefore, when determining the proportion of the economic entities owned by the population in the land use pattern and assessing the effectiveness of activity of this economic set-up, it must be taken into consideration that the size of land used by citizens exceeds official statistical data.

A grouping of farm holdings according to the area of the plot of land reveals the distinctive features of the citizens' participation in the agrarian reform (Fig. 1). The suburban holdings located around the city of Ulan-Ude are characterized by a high proportion of landintensive holdings, with the area of their agricultural lands exceeding 10 ha. Particularly noteworthy in this group are the holdings in the Ivolginskii district. A mere 1.4% of the holdings accounts for 30% of the district's agricultural area. The largest areas of fallow lands, up to 34%, correspond to the suburban holdings. Actually,

**Fig. 1.** Group of economic entities owned by the population of the Republic of Buryatia according to the size of land area. Administrative districts of the Republic of Buryatia: (1) Barguzinskii, (2) Bauntovskii, (3) Bichurskii, (4) Dzhidinskii, (5) Eravninskii, (6) Zaigraevskii, (7) Zakamenskii, (8) Ivolginskii, (9) Kabanskii, (10) Kizhinginskii, (11) Kurumkanskii, (12) Kyakhtinskii, (13) Muiskii, (14) Mukhorshibirskii, (15) Okinskii, (16) Pribaikal'skii, (17) Severo-Baikal'skii, (18) Selenginskii, (19) Tarbagataiskii, (20) Tunkinskii, (21) Khorinskii.

Groups of economic entities: Ia - high proportion of small- and medium-sized cropping farms, concentration of agricultural lands in large-sized and land-intensive enterprises, broad-scale agricultural development of peripheral forest-steppe and steppe intermontane depressions; Ib - increased share of small- and medium-sized cropping farms, concentration of most of the agricultural lands in medium- and large-sized cropping farms, broad-scale agricultural development of peripheral forest-steppe and steppe intermontane depressions; IIa - absolute predominance of small- and medium-sized cropping farms accounting for most of the agricultural area, all-round agricultural development of landscapes of the Selenga middle mountains; IIb – absolute predominance of smalland medium-sized cropping farms accounting for as much as a half of the agricultural area, existence of single land-intensive enterprises, all-round agricultural development of steppe landscapes of the Selenga middle mountains; IIc – absolute predominance of small- and medium-sized cropping farms, absence of land-intensive enterprises, all-round agricultural development of the Selenga delta area; IIIa – "bipolar" structure of land use in peripheral areas, absolute predominance of small-sized cropping farms, concentration of agricultural lands in a small group of large-sized and land-intensive cropping farms, combination of broad-scale agricultural development of steppe depressions and focal agricultural development of mountain-taiga depressions; IIIb – "bipolar" structure of land use in peripheral areas, absolute predominance of small-sized cropping farms, concentration of agricultural lands in a small group of large-sized cropping farms, absence of land-intensive enterprises, focal agricultural development of mountain-taiga depressions; IVa - absolute predominance of small-sized cropping farms, relatively uniform differentiation of the agricultural area between land users, broad-scale agricultural development of steppe and forest-steppe depressions of suburban areas; Va - predominance of medium-sized cropping farms with an area of agricultural lands ranging from 0.5 to 3 ha, tendency for consolidation of land allotments, focal agricultural development of peripheral mountain-taiga depressions.





the lands that are in the most advantageous position with respect to the transport and communication lines and to the sales markets are withdrawn from the agricultural turnover. Lands for agricultural purposes owned by citizens are not used for their direct purposes; instead, they become the financial investment objects. In mountain-taiga and depression-steppizated areas, the agricultural lands are used more intensive. The only exception is provided by the remotely located Muiskii district in which the fallow lands constitute as much as 28.3%. There are few local residents here; those who arrived to construct the construction of the Baikal-Amur Main Railroad (BAM) are now working on a rotational basis in other regions (in Irkutsk and Chita oblasts, and in the Sakha Republic (Yakutia)), so that they do not pursue agricultural production. The money they earn is invested, among other things, in plots of land.

#### Differentiation of the Structure of Plant-Growing

One of the characteristic features of the subsistence economy is the diversity of the structure of crops as well as the absence of monocrops. The economic entities owned by the population of the Republic cultivate grain and fodder crops, almost all kinds of vegetables on open and protected ground (cabbage, cucumbers, tomatoes, beets, carrots, and onions), potatoes, water-melons, and green crops. Potatoes constitute the leading crop. with its average per capita consumption of 153 kg/ year, or 38 kg/year greater than the rate (115 kg/year) recommended by the Institute of Labor Medicine and Human Ecology, Siberian Branch, Russian Academy of Agricultural Sciences. The districts that are situated in the immediate vicinities to the city of Ulan-Ude are distinguished by an increased proportion of vegetables in the structure of crops (Table 1). Formation of the "vegetable" zone around Ulan-Ude is accounted for by the proximity of sales markets, a good transport accessibility, and by a constant demand for plantgrowing produce among residents. Fodder endowment is a challenging problem in the agricultural economy. The Republic shows an ongoing tendency for an increase in the importance of field fodder production; however, the feed ration continues to essentially rely on coarse fodder obtained from natural hay-fields.

The proportion of fodder crops in the structure of sown areas increased from 2.1 to 29% during the years of reforms. This is due to a considerable increase in the

Table 1. The structure of crops, % of the sown area

Districts	Croin arong	Γ	Dototo	Vegetables and water-melons			
Districts	Grain crops	Forage crops	Potato	protected ground	open ground		
Barguzinskii	19.6	12.2	63.2	0.5	4.5		
Bauntovskii	0	0.2	93.2	3.5	3.1		
Bichurskii	0.2	2.8	86.4	0	10.5		
Dzhidinskii	5.7	29.4	56.6	0.2	8.0		
Eravninskii	1.5	0.6	92.4	0.7	4.9		
Ivolginskii	0	0.7	78.2	2.1	18.9		
Kabanskii	0	0.7	91.2	1.4	6.6		
Khorinskii	0.1	0.4	88.7	0.5	10.3		
Kizhinginskii	0.1	3.7	87.4	0.4	8.4		
Kurumkanskii	0	0.1	90.0	0.3	9.6		
Kyakhtinskii	0.1	1.9	91.3	0.1	6.5		
Muiskii	0	0	85.3	3.7	11.0		
Mukhorshibirskii	1.0	24.0	69.1	0	5.9		
Okinskii	0	52.7	45.4	1.8	0.1		
Pribaikal'skii	0	1.4	88.5	1.5	8.6		
Severo-Baikal'skii	0.8	0.7	89.8	2.3	6.3		
Selenginskii	0.1	0	84.8	0.8	14.4		
Tarbagataiskii	2.2	19.4	70.4	0.5	7.0		
Tunkinskii	0	3.7	87.2	0.5	8.6		
Zaigraevskii	0.8	0.8	87.8	1.6	9.0		
Zakamenskii	0.3	28.0	67.2	1.3	3.1		

Note. The table was compiled by using data of All-Russian Agricultural Census 2006.

numbers of livestock, and a decrease in the proportion of fodder obtained in agricultural organizations. Hay from annual grasses forms the basis for field fodder production in all districts of the Republic. The absence of ensilage crops in the structure of crops is one of the reasons behind the low productivity of cows. Odergrain crops are dominated by oats and barley. On the whole, however, the range of fodder crops being raised remains rather limited, although the soil-climatic conditions in the steppe areas of Buryatia are favorable for a more widespread occurrence of succulent fodders. The chief causes for the low proportion of grain crops and fodder-grain crops in the structure of crops are that expensive specialized equipment for cultivating the soil and crops is absent in the economic entities owned by the population and that the plots of land are too small.

## Differentiation of the Structure of Livestock Husbandry

The subsistence economy is characterized by a significant differentiation of the structure of herd (Table 2). For self-sufficiency purposes, it is common for the population to keep various species of livestock and poultry and to pursue apiculture and rabbit-breeding.

Livestock husbandry in the Republic, which is to a lesser extent affected by climatic factors, relies in its development on a wealth of historical experience of steppe residents as well as on the existence of vast pastures and hay-fields. Livestock husbandry is a leading sector. Cattle account accounts for 64 to 88% of the total number of animals. For the years of agrarian reforms, the cattle population increased from 211,13 thou head in 1993 to 286.5 thou head in 2009, and the total number of pigs for the same period decreased from 71.4 to 37.7 thou head. Such a drastic reduction in the population of pigs was due to a shortage of fodder. In previous years, pigs were feeding on grain and mixed fodder received by local residents in their collective enterprises in lieu of payment for work or as rent payment for their plots of land. The arable areas have decreased in size considerably to date, so that the issue of grain availability is a very challenging problem for all agricultural producers of the Republic. Horsebreeding has increased in importance, and the total number of horses nearly doubled, from 20.2 to 41.3 thou head. Horses are used as a draught and transport means. The greatest increase in the total number of livestock is observed in sheep-breeding, a traditional sector of livestock husbandry of Buryatia. Compared

**Table 2.** The structure of agricultural livestock capita, % of the total number of conditional livestock

Districts	Cattle	Pigs	Sheep	Horse	Hens	Geese	Turkey- hens	Rabbits
Barguzinskii	79.71	5.69	4.16	9.66	0.75	0.01	0	0.02
Bauntovskii	73.04	1.51	0.01	24.98	0.25	0.05	0.01	0.15
Bichurskii	65.73	17.99	5.15	8.60	2.29	0.2	0.03	0.01
Dzhidinskii	70.09	11.91	6.56	8.99	2.42	0.01	0.09	0.02
Eravninskii	82.23	2.07	3.52	11.66	0.48	0.01	0.01	0.02
Ivolginskii	88.15	5.94	2.56	1.53	1.13	0.04	0.59	0.06
Kabanskii	83.89	6.78	1.07	4.66	3.26	0.12	0.03	0.19
Khorinskii	81.44	4.51	5.89	0.47	7.60	0.02	0.01	0.06
Kizhinginskii	79.07	3.25	5.25	11.74	0.66	0.01	0	0.02
Kurumkanskii	72.96	4.38	10.13	11.20	1.30	0.01	0	0.02
Kyakhtinskii	67.57	11.12	7.13	11.77	2.31	0.04	0.02	0.04
Muiskii	80.86	10.18	0	2.43	4.53	0.54	0	1.46
Mukhorshibirskii	64.81	20.25	5.40	7.19	2.13	0.09	0.04	0.09
Okinskii	75.38	0.10	3.50	21.01	0.01	0	0	0
Pribaikal'skii	73.96	12.10	2.07	7.93	3.64	0.09	0.03	0.18
Severo-Baikal'skii	66.83	17.11	0.10	11.33	3.68	0.03	0.01	0.91
Selenginskii	62.5	5.92	8.83	21.39	1.26	0.02	0.02	0.06
Tarbagataiskii	70.85	18.23	4.74	3.59	2.37	0.1	0.04	0.08
Tunkinskii	86.73	3.30	1.41	7.40	1.13	0.01	0	0.02
Zaigraevskii	77.64	11.64	4.36	3.23	2.87	0.1	0.04	0.12
Zakamenskii	78.16	5.72	3.68	11.88	0.55	0.01	0	0

Note. The table was compiled by using data of All-Russian Agricultural Census 2006.

with the beginning of the reforms, the herd population increased by a factor of 3.8 to reach 121.5 thou head.

Unlike plant-growing, the location of the sectors of livestock husbandry does not show any clearly pronounced suburban specialization. Only the farms of the Ivolginskii and Zaigraevskii districts that are situated in the immediate neighborhood of Ulan-Ude show a high proportion of cattle and, in particular, cows. in the herd. Examination of the data (see Table 1 and 2) reveals a correlation between a significant concentration of cattle and a high proportion of natural forage lands in the land-use pattern. The sole exception is provided by the farms of the Zaigraevskii and Kabanskii districts which are experiencing a shortage of pastures and hayfields, but with a high proportion of cattle in the herd structure. In Soviet times, agricultural enterprises in these districts were keeping highly productive dairy cattle, with field fodder production forming its fodder resources. The practices and standards of keeping dairy cows in the economic entities owned by the population in these districts have persisted to date.

#### Marketability of Agricultural Products

The subsistence economy under the contemporary socioeconomic conditions advantageously combines nonmonetary production relations (barter, payment with food products, rendering of services) with commodity-money relations. A combination of commercial agriculture with natural production is a form of adjustment to the market, an element of the income accumulation strategy. According to the findings reported by the American economist R. Clifton [12], peasant farm holdings can be regarded as consumer entities, if the proportion of sold agricultural products does not exceed 50% of the total output.

In the economic entities owned by the population of the Republic of Buryatia, the marketability of livestock and poultry meat reaches 51.6% [1], which is characteristic for farm production. According to the findings reported in [8], a significant exceedance of agricultural output over the recommended consumption rate is indirect evidence for a farm surplus sold via various channels.

The data from Table 3 characterize the level of production and consumption of the main kinds of agricultural produce. The marketable character of meat and milk production may be deduced from the density of cattle population per farm holding. On the average, for the Republic this figure reaches 2.1 units without considering bull calves and heifers which are reared for sales. Personal observations show that there is little likelihood for every family to keep more than two cows. Large numbers of livestock are characteristic for separate holdings which are, in fact, farms carrying out unregistered business activities within the boundaries of space adjoining them.

**Table 3.** Output of main kinds of agricultural products

Kinds of products	Output of products per rural resident*	Recommended annual consumption rate for adult working person**	Production output vs. annual consump- tion rate	
Potatoes, kg	339.1	115.0	3.0	
Vegetables, kg	82.1	97.0	0.9	
Milk, kg	502	187.1	2.7	
Eggs, pieces	52.5	200.0	0.3	
Meat, kg	56.0	39.8	1.4	

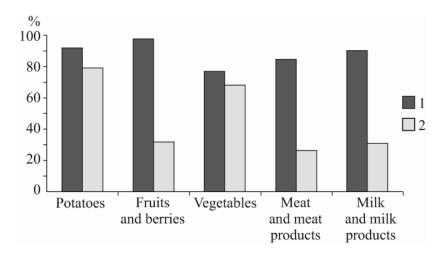
<sup>\*</sup> The table was compiled by using data from the Federal Service of State Statistics for the Republic of Buryatia for the year 2009;

#### Contribution of Private Subsidiary Holdings to the Economic Well-Being of Families

There is consensus of opinion among Russian and foreign researchers that the subsistence economy would always be growing in importance during the transitional period [13, 14]. This is a reflection of the survival strategy where the population with no hope for any assistance from the state has to provide itself with food products. An expansion of domestic production of food products, gathering and processing of berries, mushrooms and wild plants contribute significantly to a bettering of a family's well-being. Analysis of statistical data indicates that the plots of land adjoining homesteads and dacha plots provide a considerable part of products consumed (Fig. 2). The Republic of Buryatia has a still higher self-sufficiency in staple foodstuffs. But the importance of products from one's private farm as the source of money income is small. According to data from Rosstat, overall for the Russian Federation the sales of agricultural produce provide as much as 15% of all cash earnings of a household [15]. In actual fact, only the earnings from sales of meat and, partially, milk is able to ensure an increase in money income of rural families, whereas all the other products obtained from a private subsidiary holding are consumed mostly by the families themselves.

Data in Table 4 show the contribution of private auxiliary holdings to the well-being of rural families of the Republic of Buryatia, and the character of diversification of earnings. The proportion of natural earnings from food products, and also of subsidies and privileges granted in kind is by a factor of 6 smaller than that of money income and does not exceed 13%. The contrast between the substantial contribution from one's own production to the consumption of food

<sup>\*\*</sup> according to data from the Institute of Labor Medicine and Human Ecology, Siberian Branch, Russian Academy of Medical Sciences.



**Fig. 2.** Contribution of economic entities owned by the population to the output of agricultural products. (1) Russian Federation; (2) Republic of Buryatia.

products and its relatively modest importance as the source of money income is accounted for by the fact that the vast majority of the economic entities owned by the population are engaged in growing the cheapest products (potatoes and vegetables). As a result of converting the natural to money units, the importance of one's own products is not as high, from the standpoint of economic well-being.

Importance of Separate Kinds of Products in Agricultural Production, and Diversification of Income

A positive correlation between the value of gross domestic output (GDO) and the value of dairy and meat products as well as potatoes reflects the largest contribution from these sectors to GDO. The guaranteed obtaining of income, and a stable development of these sectors are attested by the regression equation calculated on the basis of the indicators for the time interval 2004–2009:

where GDO is gross domestic output: P - potato-

growing, V – vegetable-growing, D – dairy production, L – livestock meat production, E – production of eggs, and W – production of wool.

The correlation coefficient between GDO and the value of production of egg-laying poultry and wool sheep-breeding is negative because of some economic risk associated with the output of these products which does not bring in a guaranteed profit.

Input data for calculations and the forecasted importance of gross output are provided in Table 5 for the case of an increase in one of the indicators. One additional example can be given for a calculation of the predictive regression equation. In the event of an increase in the output of milk (this indicator is with a positive correlation) to 220 thou t, for example, with the other indicators remaining at the level of the year 2009, the value of gross output in 2010 will increase to 11314.11 mil. rubles:

GDO = 
$$112.14 \times 215.7 - 57.22 \times 95.8 + 387.58 \times 23.5 + 103.76 \times 220.0 - 579.45 \times 21.7 - 59184.11 \times 0.21 - 14174.916 = 11314.11.$$

In spite of the unprofitableness of some kinds of products, the spectrum of production in the economic entities owned by the population is very broad. The

Table 4. The structure of available resources of agricultural households, %

Avisilable resources (1000/)	Years						
Available resources (100%)	2001	2005	2006	2007	2008		
Gross income	98.3	92.0	92.6	92.4	89.9		
incl. money income	75.9	73.7	76.4	76.3	77.0		
Value of receipts of food products in physical terms	21.8	16.0	15.0	15.4	12.2		
Value of subsidies and privileges granted in physical terms	0.6	2.3	1.2	0.7	0.7		
Amount of attracted funds and savings used	1.7	8.0	7.4	7.6	10.1		

Note. The table was compiled by using data from the Federal Service of State Statistics for the Republic of Buryatia for the year 2009.

Indicator	Years								
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Potatoes, thou t	151.9	173.3	202.1	215.6	219.3	215.4	215.4	218.6	240.7
Vegetables, thou t	69.0	76.3	83.9	94.7	93.1	95.8	95.8	95.1	104.4
Meat, thou t	28.7	30.1	25.6	25.8	23.2	23.5	23.5	24.6	22.0
Milk, thou t	198.1	191.1	194.0	197.6	206.2	219.0	219.0	220.0	225.8
Eggs, mil.	26.2	25.7	25.4	25.2	22.3	21.7	21.7	21.8	20.0
Wool, thou t	0.173	0.204	0.206	0.217	0.235	0.229	0.229	0.212	0.237
Value of gross output, mil. rubles	4751.1	5742.3	6798.9	7624.7	8660.6	10203.6	4296.9	12082.1	12932.9

**Table 5.** Initial and forecasted figures of agricultural production

Note. The initial figures are given according to data from the Federal Service of State Statistics for the Republic of Buryatia for the year 2010.

diversification policy makes it possible to compensate the unprofitable sectors by profits form the manufacture of profitable products, and to provide households with all the necessary foodstuffs. The main internal factors dictating a need to follow the diversification strategy are the large size of a family, the presence of unemployed persons in such a family, and the low level of education of its members. The external factor involves the level of regional development. In economically weak regions, rural households — by virtue of their low financial soundness — have to expand the range of their products, and to increase the sources of non-agricultural self-employment (sales of mushrooms, berries, wild plants, fish, game and furs, rendering of services, renting of dwellings, leasing of land, etc.).

### CONCLUSIONS

By investigating the suggested indicators (utilization of land resources, differentiation of agricultural sectors, marketability of products, diversification of income, and importance of one's own production for the well-being of one's family), it is possible to reveal the regional peculiarities of the socioeconomic and territorial organization of the economic entities owned by the population carrying out its activities in conditions of adjustment of natural forms of production to the market conditions.

The economic entities owned by the population of the Republic of Buryatia are characterized by a polarization of the structure of agricultural lands. In addition to the numerous group of holdings owing small areas of land, most districts have developed a small (in the number) but land-intensive group of farm holdings. In the suburban area there is emerging a zone of large-contour land plots characterized by a low intensity of utilization of agricultural resources. Such holdings have a high proportion of fallow lands, including the most valuable arable areas.

The farm holdings in suburban areas do not use in full measure the advantages of their economicgeographical location, i.e. the proximity to sales markets, and to transport lines. The high land endowment, combined with a significant proportion of fallow lands, makes it possible to enhance a further intensification of agricultural production. However, the impossibility of selling independently, without recourse to subpurchasers, the farm surplus on urban markets, and main employment in more highly-paid industrial sectors and in the services industry do not contribute to full-time occupation in one's private subsidiary holding or to an increase in the output. On the contrary, for residents of remote areas the farms owned by themselves often is the only source of income, and agricultural resources are exploited more intensively in this case.

In the economic entities owned y the population of the Republic of Buryatia, self-sufficiency with agricultural produce is higher than in the Russian Federation as a whole. A broad-scale involvement of citizens in the natural economy is due to a lower level of economic development, and to a tendency toward the preservation of a traditional structure of livelihood, especially in areas dominated by the aboriginal population. Products obtained from private farm holdings is the major and the most readily available source of replenishment of the family budget with natural products and, to a lesser extent, with cash earnings.

Upon analyzing the territorial differentiation of the structure of agricultural sectors, it made itself evident that a "vegetable" zone was emerging around the capital city of the Republic, which has a favorable influence on the provision of the citizens with fresh products. Since field fodder production is in an undeveloped state in the overwhelming majority of the economic entities owned by the population, formation of the herd structure is dependent on the availability of pastures and hay-fields. The unprofitableness of sheep-breeding notwithstanding, the population of sheep in the herd structure still remains high. This is evidence of the preservation of traditional national practices of pasturebased livestock husbandry in Buryatia. The regression equation shows that the output of products of industrial sectors, such as egg-laying poultry production and

hothouse vegetable-growing requiring a high degree of mechanization and electrization are inefficient for economic entities owned by the population. In these sectors, the economic entities owned by the population are unable to advantageously compete with specialized poultry farms and hothouse enterprises.

Considering the geographical peculiarities of the Republic, it is necessary to work out special-purpose measures of the regional policy in order to promote alternative employment, based on using the available forest and recreational resources and state support of non-agricultural businesses which generates a demand for wild plants, for example. The policy of furthering alternative employment in rural areas will be beneficial for reducing poverty among its residents, and for curbing the outflow of population.

The natural economy, and the self-sufficiency strategy under current socioeconomic conditions do not constitute a marginal form or the unavoidable destiny of the poorest strata of population. Agricultural production of this kind is successfully adjusting itself to the current market situation to become a vehicle of accumulation and diversification of income of millions of Russian citizens.

Results derived from investigating farm holdings as economic entities of the territorial and socioeconomic structure of agriculture open up fresh opportunities for optimization of traditional land-use patterns and for working out measures for efficient management of productive forces in conditions of a multistructure economy. The prospects for a further development of the economic entities owned by the population are determined by the development conditions of the formal sector of the economy, major agrarian enterprises, and by their potentialities of excluding the economic entities owned by the population from the niches they occupy.

#### REFERENCES

1. Agriculture of the Republic of Buryatia, *Statisticheskii sbornik no.* 10–07–19, Ulan-Ude: Federal'naya sluzhba

- gosudarstvennoi statistiki, 2009 [in Russian].
- 2. Kalugina, Z.I. and Antonova, T.P., *Private Subsidiary Holding of the Rural Population: Problems and Prospects*, Novosibirsk: Nauka, 1984 [in Russian].
- 3. Shmelev, G.I., *Private Subsidiary Holding. Possibilities and Prospects*, Moscow: Politizdat, 1983 [in Russian].
- 4. Serova, E., Karlova, N., Tikhonova, T., et al., *Alternative Employment in Rural Areas of Russia*. http://www.iep.ru/ru/alternativnaya-zanyatost-v-selskoi-mestnostirossii.html [in Russian].
- 5. Buzdalov, I., Agrarian Theory: The Conceptual Foundations, the Development Tendency, and Current Concepts, Moscow: Akademiya, 2005 [in Russian].
- 6. Praust, R.E., *Apologetics and Problems of Family Farming*, Moscow: Izd-vo "Ekonomika rossiiskikh dereven"; Izd-vo Vseros. in-ta agrarnykh problem i informatiki, 2008, issue 11 [in Russian].
- 7. Lysenko, E.G., Private Auxiliary Holdings of the Population in the Structure of Agricultural Production, *Vestn. RASN*, 2007, no. 1, pp. 13–15 [in Russian].
- 8. Nefedova, T.G. and Pallot, J., Individual Subsidiary Farming of the Population as an Object of Geographical Study, *Izv. RAN. Ser. geogr.*, 2002, no. 3, pp. 49–61 [in Russian].
- 9. Nefedova, T.G. and Pallot, J., *Unknown Agrarian Sector,* or *Why You Need a Cow?* Moscow: Novoe izdatel'stvo, 2006 [in Russian].
- 10. Shanin, T., *The Awkward Class. Political Sociology of Peasantry in a Developing Society, Russia 1910–1925*, Oxford: Clarendon Press, 1972.
- 11. Chayanov, A.V., *Peasant Farming: Selected Works*, Moscow: Ekonomika, 1989 [in Russian].
- 12. Clifton, R., Subsistence Agriculture and Economic Development, Chicago: Aldine Publishing Co., 1969.
- 13. Kapelyushnikov, R., Employment in Households of the Population, *Voprosy ekonomiki*, 2008, no. 3, pp. 99–120 [in Russian].
- 14. Godelier, M., *Natur, Arbeit, Geschichte. Zu einer universalgeschichtlichen Theorie der Wirtschaftsformen*, Hamburg: Junius, 1990.
- 15. Rossiiskii statisticheskii ezhegodnik (Russian Statistical Yearbook). 2008, ed. by V.L. Sokolin, Moscow: Rosstat, 2009.