ISSN 2079-9705, Regional Research of Russia, 2018, Vol. 8, No. 4, pp. 364–374. © Pleiades Publishing, Ltd., 2018.
Original Russian Text © A.I. Alekseev, S.G. Safronov, 2017, published in Regional'nye Issledovaniya, 2017, No. 4, pp. 24–35.

RURAL DEVELOPMENT

Subsidiary Household Farming in Russian Regions in the Late 20th–Early 21st Centuries

A. I. Alekseev[a], * and S. G. Safronov[a], **

[a] *Faculty of Geography, Moscow State University, Moscow, 119991 Russia*

**e-mail: alival@mail.ru*

***e-mail: saffff@mail.ru*

Received June 24, 2018

Abstract—In the post-Soviet period, subsidiary household farming transformed from an "auxiliary" complementary type of activity as understood in Soviet terms into an important form of occupation and source of income for, primarily, residents of rural areas and small towns. However, the dramatic increase in the subsidiary household farms contribution to food production in the 1990s halted at the beginning of the 21st century and subsequently reversed to downturn. The absolute sizes of subsidiary household farming declined more rapidly in Non-Chernozem regions with an aged population as the large Soviet-style agricultural enterprises that fed it were liquidated. Animal husbandry production by subsidiary household farms grew increasingly concentrated in the southern regions of European Russia and Western Siberia. Based on official statistics, the article analyzes the leading factors that governed the regional peculiarities of subsidiary household farming transformation in the post-Soviet period. Its major types are identified, including involvement the dynamics of animal husbandry production, which is the most intensive part of subsidiary household farming.

Keywords: subsidiary household farms, rural area, Russian regions, production, territorial organization of agriculture

DOI: 10.1134/S2079970518040019

INTRODUCTION

As an institution in the broad sense, the emergence of subsidiary household fatming is rooted in the remote past, but it has been gradually taking shape as sedentary settlement patterns have developed and the status and social structure of rural residents have changed. Household plots in fact represented the only peasant household property that was unalienable and exempt from redistribution in the period when peasant communes dominated in Central Russia.

At the same time, the concept of *subsidiary household farm* (SHF) per se is relatively recent. It emerged in the mid-1930s, when the collective and Soviet farm system was forming.[1] The word *subsidiary* itself means "auxiliary, secondary" and connotes the attitude of the authorities, which treated the farms as a necessary and temporary concession to the small-scale commodities structure on the understanding that the majority of time and effort would be contributed to collective farming.

The contradictory attitude of Soviet power toward subsidiary household farming is associated with the change in fundamental views and the ideological agenda and realm of socialist construction. During chronic food shortages, SHFs became the population's primary means of adapting to critical economic conditions and supplying food to the population becomes their key function.[2] Another important function of household farming, specifically, instilling a

[1] In 1928 before collectivization, individual peasant farms accounted for 96% of lands under cultivation. During collectivization, first, everything was consolidated, including productive and draft cattle, implements, and all cultivated lands. However, it became obvious soon enough that to survive, peasants had to retain at least the minimum land allotments and a number of livestock head, in other words, a subsidiary household farm. According to the Collective Farm Regulations adopted in 1935, such an allotment was from a quarter to half a hectare; it was also normally permitted to keep one cow and a maximum two head of calves, one sow, and up to ten sheep and goats [11], p. 20.

[2] Since no one could manage to live off the earnings from working for collective farms, SHFs became the main source of food products. Although by 1940, household lands only accounted for 4% of the area, the SHFs contribution to potato and vegetable production was 50%, while meat and milk contributed nearly two-thirds. As A.A. Nikonov approximated, peasants spent 80% of their labor hours working for collective farms but received only 20% of their means of subsistence, whereas a contribution of 20% of labor hours to SHFs yielded 80% of the income [13]. During the period of Khrushchev's reforms, who in every possible way strove to restrict SHFs so that a collective farmer would "devote more effort to the public economy," SHF areas shrank more than threefold, down to 1.2% of total agricultural lands; the contribution of SHFs to food production also somewhat decreased, e.g., down to 40% of meat.

feeling of ownership and preserving the principles of private property, was largely made irrelevant as a result of repeated attempts to eliminate SHFs with administrative measures.

Notwithstanding the lessening of pressure on SHFs after 1964, their share continued to decrease until the collapse of the Soviet Union; in 1990, they accounted for a quarter of total production, including a quarter of meat and dairy, a third of vegetables, and two-thirds of potato [11]. How, though, can 1% of agricultural lands be attributed to a quarter of total production? It was apparently impossible for such land areas to provide animal husbandry with enough feed. In reality, this was a "symbiosis" between subsidiary and large-scale collective farming in that the collective farms (*kolkhozy*) provided SHFs with hay meadows and pastures; furnished grains and other fodder; offered machinery and equipment for farm cultivation; assisted in sales of products; etc.[3]

At the end of the 1980s, when crisis in Soviet agriculture was already noticeable, two potential developmental directions were discussed in the literature. Supporters of the planned economy of "socialism with a human face" considered it necessary to develop large-scale farms, stock them with all necessary machinery and fertilizers, and switch to advanced technologies. Supporters of a market economy advocated for liquidation of collective farms, for granting of land to peasants, and for development of a separate peasant farming system. However, it never occurred to anyone that, as a result of reforms, the majority of products would be produced on SHFs. The latter were simply not taken seriously as an essential sector of agriculture.

The post-Soviet upswing of SHFs was related to the severe crisis of the national economy in the early 1990s. A considerable part of the population, primarily in rural areas and small towns, once again turned to SHFs while taking an advantage of the increase in land farm size restrictions and simplification of its allocation procedure. Many rural residents who had, in fact, lost their jobs and wages while being formally retained by collective farms, no longer considered subsidiary household farming supplementary earning; it became their main occupation. In addition, SHFs maintained a symbiotic relationship with large-scale agricultural producers, but subsequent disintegration and liquidation of collective farms in the 2000s also derailed the subsidiary household farming system.

[3] An interesting case of the relationship between collective farms and SHFs is reported by V.A. Maksimov. At the end of the 1980s, he interviewed farm machinery operators in various natural zones of Bashkiria. The question was whether they would prefer more substantial monetary payment or a larger number of days off. Every person who lived in the forest zone, where animal feed had to be stocked by haymaking, preferred days off, whereas in the steppe zone, where payment-in-kind (grains) was related to wage size, everybody chose money [12].

FORMULATION OF THE PROBLEM

The contribution of SHF to the country's agriculture varied rather strongly over the past quarter century. Three stages can be distinguished in the development of national subsidiary household farming. The *first* is characterized by dramatic growth in the contribution of the residents' farms to agricultural output versus a downturn in public sector. Simultaneously, large-scale agricultural enterprises remained in place by inertia, while their assets were used to compensate staff and team members for the lack of adequate salaries. The growth was largely extensive and associated with the increase in the number of such farms and expansion of agricultural land area transferred to residents as farms. The *second* transitional stage saw subsidiary household farming exhaust its extensive growth potential as the dissolution of the majority of large Soviet-style collective farms was finalized by the 2000s. And *third*, in the late 2000s, the role of residents' farms in the economy decreased. This was determined by a number of factors, including, primarily, the re-established role of large agricultural producers, further demographic decrease in rural areas in the majority of Russian regions (especially in Central Russia), and the formation of new life attitudes in the population due to generational change.

The indicated stages of subsidiary household farming transformation were asynchronous and produced different results in different regions of the country. Thus, we need to classify the regions to gain a better understanding of the processes that occurred at the federal subjects level. Dynamic analysis of this agricultural sector in recent years allows insight into the importance and function that will be performed by SHFs in different regions in the long term.

DEPTH TO WHICH THE PROBLEM HAS BEEN ADDRESSED

The post-Soviet transformation of SHFs is normally examined by national science either at the nationwide level or intraregional level. The first group includes a number of agricultural economists that in the wake of the upswing of SHFs hope for an increase in their marketability and development into *peasant farms*. In addition, there is emphasis on the need to massively and assuredly support this while using the still challenging measures presented in the Federal Law On Subsidiary Household Farming [8].

Many specialists note that subsidiary household farming will never be a panacea: for Russia, this form of agricultural economic management displays the lowest degree of mechanization and labor productivity [6, 7]. Moreover, everyone agrees that the future of SHFs strongly depends on the prospects and forms of the development of large-scale agricultural producers, which will also determine a role of residents' farms.

For these reasons, incentives offered to SHFs should be differentiated by region.

Simultaneously, a fair number of theses have been written on the problems of subsidiary household farming development in particular regions that place the utmost importance on factors of intraregional differentiation related to sales and marketing and transport, above all [15, 16]. As for the factors operating at the interregional level set forth quite a while ago [5, 9], they are commonly referred to but remain "outside the parentheses"; while reflecting general proportions and common trends, the nationwide dynamics obscures differently directed trends in the development of residents' farms in different parts of the country.

Studies that analyze the effect of interregional differentiation factors are relatively few in numbers. The subsidiary household farming problems are largely considered in the context of agriculture transformation overall or from the perspective of small business development or self-employment in rural area [2, 4, 10].

PECULIARITIES OF THE STATISTICS: SHFs AND RESIDENTS' FARMS

The complication of the subsidiary household farming concept in the post-Soviet period is associated both with its extension and blurring of the concept boundaries. At the time of its emergence in the mid-1930s, it was predominantly applicable to rural residents, whereas today it runs far beyond countryside. Agricultural statistics employs the broader concept of *residents' farms*, which allows certain assumptions when using it to characterize an SHF itself. Residents' farms encompass the agricultural activity of both rural residents on their household farms or vegetable plots located not far from their residences, as well as urban dwellers. Some of them, primarily those residing in private houses, are similar to rural residents in organizing their subsidiary farms; others manage their subsidiary farms and vegetable plots located far from their places of residence. In addition, the majority of those managing their SHFs are not directly related to agricultural production in other agricultural enterprises.

The Russian Federal Law On Subsidiary Household Farming adopted in 2003 specially defined its importance for the national economy and increasing role in the post-Soviet period as a form of "noncommercial activity in production and processing of agricultural products." At the same time, delimitation between different agricultural producers is a complex and ambiguous task. In some regions, particular incentives to register peasant (private) farms are ignored or lacking, and they continue to function as residents' farms. At the same time, some regional authorities push them to register as peasant farms, since this entitles them to benefits and subsidies, albeit it requires strong but often untenable efforts.

DYNAMICS OF AGRICULTURAL PRODUCTION ON RESIDENTS' FARMS

The early 1990s, when largely a liberal variant of reforms was preferred (land privatization, farm development, nearly complete curtailment of any forms of government control, abandonment of government procurement, slash in subsidies, etc.), saw a dramatic decrease in output from large-scale farms (former *kolkhozy* and *sovkhozy*) and a rise in production in SHFs. As a result, the positions of collective farms and SHFs were reversed; the former became subsidiary to personal farms rather than vice versa [11, 14]; "collective farms and their ilk were now once and for all perceived not so much as vestigial and standing on the sidelines, but rather as mechanism for joint and common survival with equalized chances" [3].

The dynamics of cattle livestock on SHFs is one of the basic indicators reflecting the ongoing processes of the post-Soviet period (Fig. 1). Nationwide, the total number of livestock increased in the early 1990s following distribution of the collective farm livestock among the population, but in the middle of the decade it began to drop. The trend persisted into the 2000s.

Ultimately, Russian agriculture (not including a small fraction of farmers) had essentially become a symbiosis between collective farms and SHFs; in other words, a collective farm rendered various services (transport, tillage, etc.) while providing SHFs with fodder and forage as payment-in-kind. For this reason, animal husbandry achieved the highest growth in cereal farming areas, where the collective farms could provide more animal feed.

By the end of the 1990s, the share of SHFs in total production had peaked at 55–60%; farmers accounted for about 5–7%, and large-scale enterprises, for only 35–40%. However, the overall level of mechanization dramatically decreased, since SHFs largely practiced manual labor. Its marketability similarly dropped, inasmuch as the majority of families consider an SHF a source of food rather than profit.

FACTORS FOR TRANSFORMATION OF THE TERRITORIAL STRUCTURE OF SUBSIDIARY HOUSEHOLD FARMING

According to T.G. Nefedova, key factors for the successful development of SHFs include workforce availability in rural areas and the level of development in cereal farming. The number of cattle livestock per capita serves as its basic indicator. In the early 2000s, the maximum values were observed in two types of federal subjects: national republics with a relatively high rural population density; as well as in the steppe and dry steppe regions, where residents' farms are able

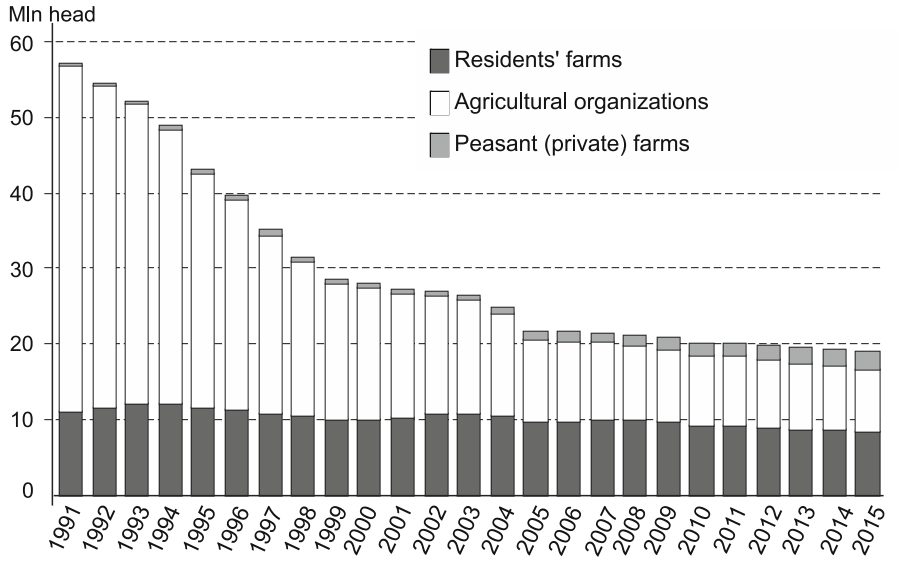

Fig. 1. Structure of cattle livestock by farm categories in Russia in 1991–2015, mln head. Source: Unified Interagency Statistic Information System. https://www.fedstat.ru/indicator/31325. Accessed on December 15, 2017.

to receive grains supply from large collectively managed farms [11, p. 145].

However, it appears challenging to unambiguously determine the leading factors for subsidiary household farming development for all regions, since factors interact to produce a combined effect: they affect and reinforce each other. We divide them into three or four large groups. The *first* group, which is directly or indirectly related to local natural geographical features, is the agroclimatic potential, which at some point influenced the establishment and continues to influence the stability of the rural population and its settlement pattern. Its age structure becomes more balanced southward. Generally, the traditional way of life goes better and even improves (in recent years) in rural communities in the steppes. Strictly speaking, it is not always an asset from the perspective of socioeconomic development or a particular person's self-actualization, but it is undoubtedly a positive contribution to preserving the role of SHFs in the economy.

The *second* group of factors, though of an "azonal" nature, is equally associated with the territorial organization of society. It describes the contradictory effects of large urban centers, which both create a demand for products and compete with SHFs for able-bodied population and land.

State of large agricultural producers forms the *third* group of factors. The outlook for wide farmerization narrowed as the large-scale Soviet-style collective farms that supplied the SHFs were liquidated. In recent decades, large agricultural holdings have emerged as a new important factor affecting the development prospects of SHFs. They play an ambiguous role even for the mere reason of their inconsistent nature; some of them are entirely new structures that were created based on novel business schemes; others originated in the Soviet past and developed from the consolidation of various businesses by former Soviet managing directors. In any case, the majority of them are profit-oriented, while the concerns of the local population, as well as both financial and social support of residents, do not seem to be on their agenda [17]. Overall, it tends to produce an inhibitory effect on SHFs. A strong decline in SHFs production is observed where agroholdings have been most actively expand their operations while forcing out other forms of economic management. Growth in the contribution of SHFs usually indicates problems with large agricultural producers.

Finally, the *fourth* group—that are negative factors—includes a multitude of economic and organizational barriers, as well as the social and psychological characteristics of the local population [10, pp. 137–142], which commonly cannot be matched to particular territories.

Shifts in the territorial structure of subsidiary household farming in the post-Soviet period can be analyzed using the data on the output of the main animal husbandry production. Data with respect to animal husbandry more adequately reflect the shift in the position of residents' farms in the structure of agricultural production as opposed to the dynamics of crop farming, which is similar for different regions. Expert opinion states that, consequently, the level of development in the animal husbandry also indicates prospects for the self-employment for the population on SHFs [10].

The distribution of regions by the contribution of SHFs to the main animal husbandry production was closest to normal in the late 1990s–early 2000s (Fig. 2). A considerable part of the population at that

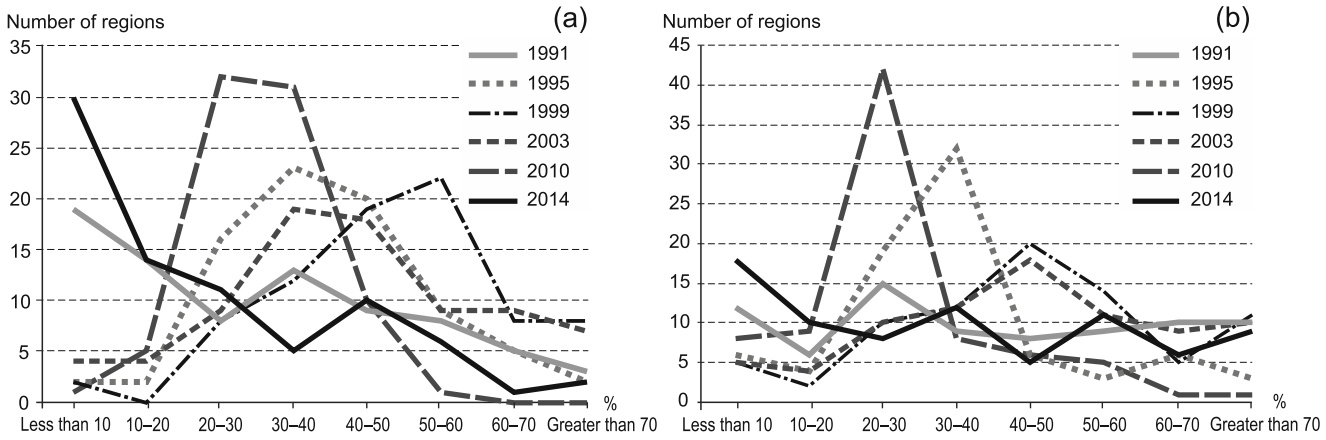

Fig. 2. Distribution of regions of Russian Federation by their contribution to livestock and poultry meat production on slaughter weight basis (a) and dairy (b) in subsidiary household farms. Source: Unified Interagency Statistical Information System. https://www.fedstat.ru/indicator/31368. Accessed on December 20, 2017.

time was occupied in subsistence food production, while the situation was largely determined by the internal resources of the territory against the background of the worst downturn in the total agricultural output. However, in as little as ten years, the distribution of regions by the share of SHFs to the production of meat, first, and, later on, dairy products became asymmetrical, because factors outside agriculture were producing an even greater effect, while after the temporary convergence, federal subjects became even more differentiated.

Notwithstanding the temporary increase in the numbers of cattle livestock on SHFs in the early 1990s, the decrease in meat production on residents' farms extended over the most of the country's territory. Growth was observed only in some regions of Southern Russia and the Lower Volga Area, as well as the Southern Ural and and Siberian regions (Fig. 3). The growth zone had shrunk by the 2000s and persisted only in economically weak national regions of the Caucuses and Southern Siberia, as well as in regions with intense migration inflows from near abroad countries. In 2016, the belt featuring the maximum per capita indicators for meat production on SHFs stretched across regions of the steppe zone. The out-of-trend regions included Belgorod oblast and Krasnodar krai, where the advancement of agroholdings somewhat limits the development of animal husbandry on SHFs, and national republics owing to lack of pig farming because the majority of the population traditionally professes Islam.

From the economic and consumer viewpoints, dairy is an even more valuable product for farms owing to the profit gained throughout the year. The belt with the maximum per capita indicators of dairy production is somewhat wider than for meat, since there are no ethnocultural restrictions (Fig. 4). The growth zone for SHFs milk output was much wider in the 1990s and covered not only regions of the Chernozem zone and Southern Russia, but also many oblasts in the Non-Chernozem zone. An appreciable contraction of the growth zone occurred as early as in the 2000s with the exception of the majority of North Caucasian and some Southern Siberian regions.

Six types of regions (Fig. 5) have been distinguished and categorized below (Fig. 6) based on the dynamics of the most important animal husbandry production. In the Non-Chernozem and northern Chernozem zones, the transformation of SHFs is occurring amid depopulation and degradation of the rural settlement pattern. In the post-Soviet period, the majority of these regions experienced a considerable downturn in agriculture that equally worsened the crisis on SHFs (types *I* and *II*). Current support programs for large agricultural producers of the new model are stepping up pressure on SHFs, whose contribution to animal husbandry production output is extremely low (type *I*). In addition, the agrarian function is replaced by residential and recreational functions in regions near Moscow.

National regions in southern Russia are at the other pole, where the high relative importance of SHFs in total production is combined with its high growth rate in-kind (type *VI*). Although the share of residents' farms in production output is likely to be even somewhat overstated, because some private farms producing a highly marketable surplus continue to operate as SHFs, it consistently exceeds 50%. Subsidiary household farming growth is driven by crisis in the public sector of the economy, low investment attractiveness, and slow modernization processes that stopped halfway. Overall, this makes it possible to preserve the traditional way of life in rural areas and SHFs as a component thereof.

Regions that belong to transitory types (*III* and *IV*), on the one hand, possess more productive agricultural resources compared to territories farther

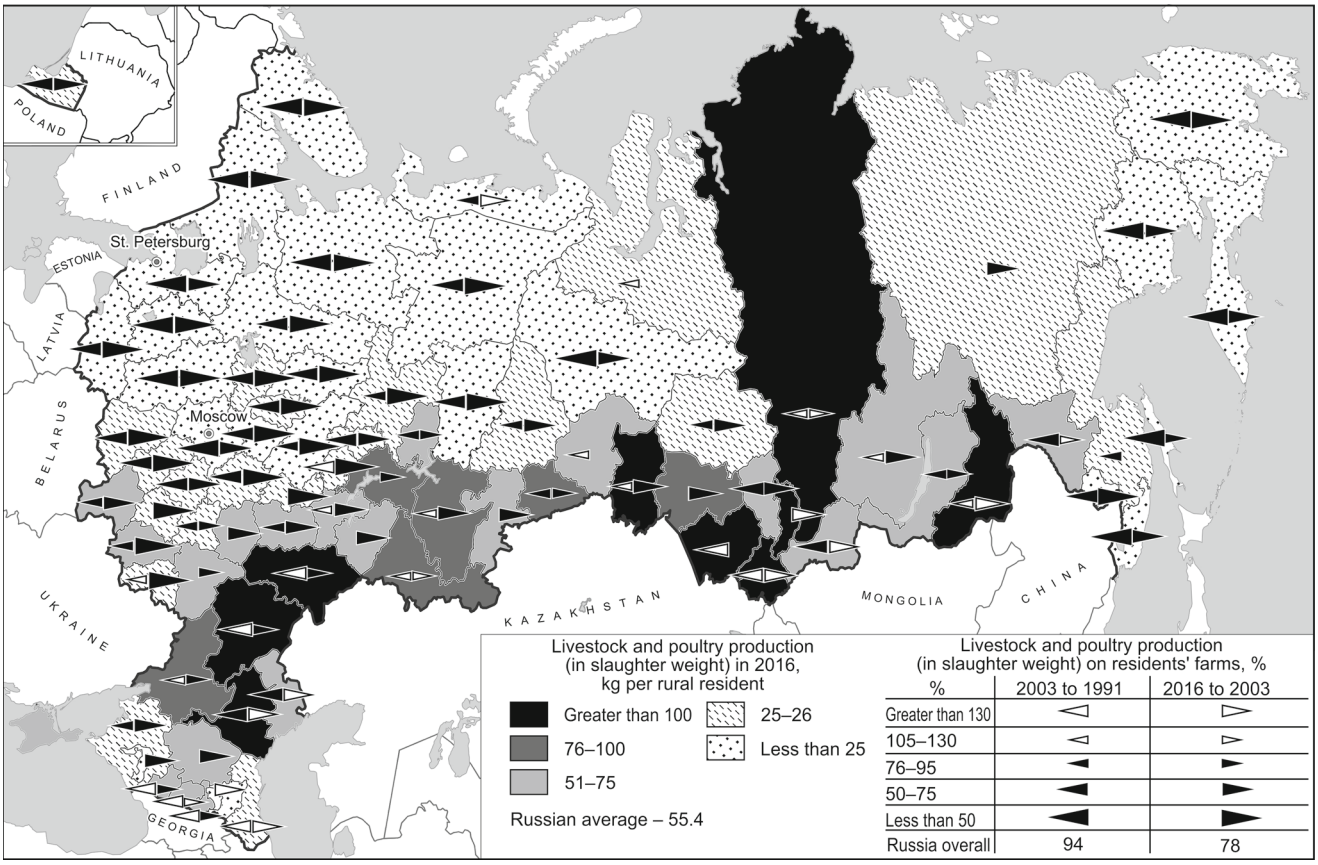

Fig. 3. Livestock and poultry meat production on residents' farms in 1991–2016. Source: Unified Interagency Statistical Information System. https://www.fedstat.ru/indicator/31368. Accessed on December 20, 2017.

north. However, even here, especially along the periphery, the average population size of rural settlements is reduced and the rural population is decreasing, while agroholdings continue to gain influence in the suburban zones of large cities (type *III*).

The most balanced is the situation in the regions of type *V*, many of which are located in the steppe zone, featuring the most valuable agricultural resources, the relatively stable size of the rural population, and overall favorable situation with the rural settlement pattern. Growth in the SHFs output is accompanied by a consistently, though not excessively, high share of parallel development of different forms of agricultural enterprises and support offered to residents' farms in the form in-kind payments of cereals from agroholdings, which for their part stimulate the SHFs animal husbandry sector.

In the post-Soviet period, the southward shift in the center of gravity of SHFs production was accompanied by an increase in its concentration in a limited group of regions (Tables 1, 2). By 2016, more than half the meat and dairy from SHFs was produced in 12–13 federal subjects, with the majority pertaining to type *V*.

The collective "northern" type includes regions with insignificant production output even in the Soviet period, which plummeted farther in recent decades against the background of intense population outflow. Exceptions are the Yamalo-Nenets Autonomous Okrug, where owing to growth in the reindeer breeding sector, meat production improved on farms of the indigenous population, and the Khanty-Mansi Autonomous Okrug, which owing to its exclusive financial capacity is presently holding its course toward development of spatially focal dairy farming based on small family farms.

In the long term, regardless of whether the crisis in the economy continues or reverses to an economic boom, the situation in regions of types *I* and *II* will persist, since the potential for SHFs development and self-employment in agriculture has been depleted, which is closely related to the profound irreversible transformation of the countryside. Earlier, we recounted one of many examples for Yaroslavl oblast, where the decrease in the number of SHFs is occurring more rapidly in small villages with an aged population rather than in large rural settlements where the able-bodied population and some production in the former collective farms have been preserved [1].

In transitory groups *III* and *IV*, a lot will depend on institutional factors, such as the attitude and activity of

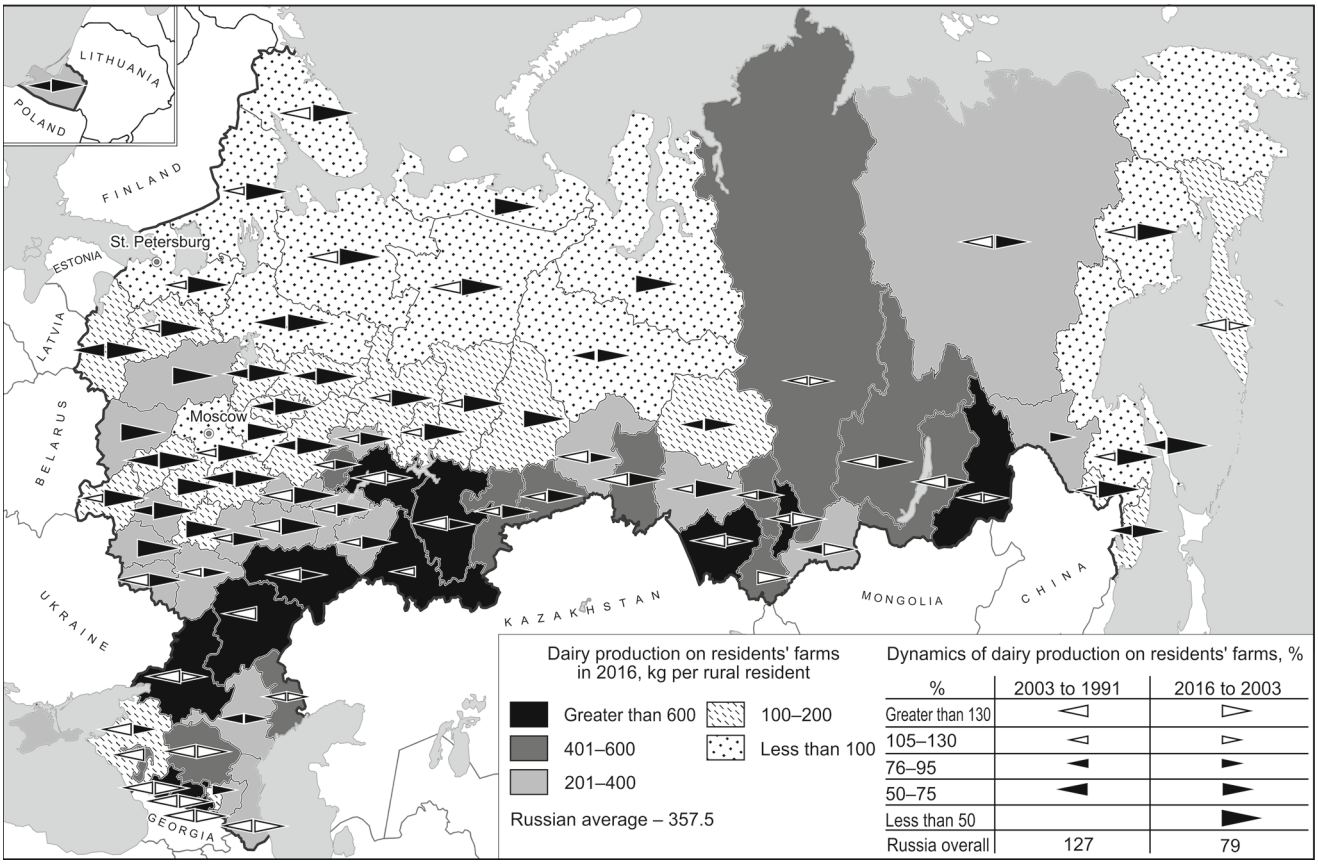

Fig. 4. Dairy production on residents' farms in 1991–2016. Source: Unified Interagency Statistical Information System. https://www.fedstat.ru/indicator/40694. Accessed on December 20, 2017.

authorities, along with the migration outflow rates from rural area. The relationship between the development of large- and small-size forms of agricultural management is becoming increasingly ambivalent in this zone. Regions with intensive ongoing processes of "holdingization" are showing a decrease in animal

Table 1. Regions with highest output of liveslock and poultry meat production (in slaughter weight) on residents' farms, % of total production output in Russian Federation

1991		1999		2016	
Krasnodar krai	5.7	Republic of Bashkortostan	5.6	Republic of Bashkortostan	5.7
Republic of Bashkortostan	5.0	Krasnodar krai	4.3	Altai krai	5.6
Rostov oblast	3.7	Rostov oblast	3.8	Rostov oblast	5.1
Stavropol krai	3.3	Republic of Tatarstan	3.3	Krasnodar krai	5.0
Republic of Tatarstan	3.1	Volgograd oblast	3.2	Republic of Dagestan	3.8
Altai krai	2.6	Stavropol krai	3.2	Republic of Tatarstan	3.6
Novosibirsk oblast	2.4	Saratov oblast	3.1	Krasnoyarsk krai	3.6
Voronezh oblast	2.4	Altai krai	2.9	Orenburg oblast	3.5
Saratov oblast	2.4	Voronezh oblast	2.7	Saratov oblast	3.5
Omsk oblast	2.1	Omsk oblast	2.5	Volgograd oblast	3.1
Total	32.7	Total	34.5	Total	42.4

Source*:* Unified Interagency Statistical Information System. www.https://www.fedstat.ru/indicator/31368. Accessed on December 20, 2017.

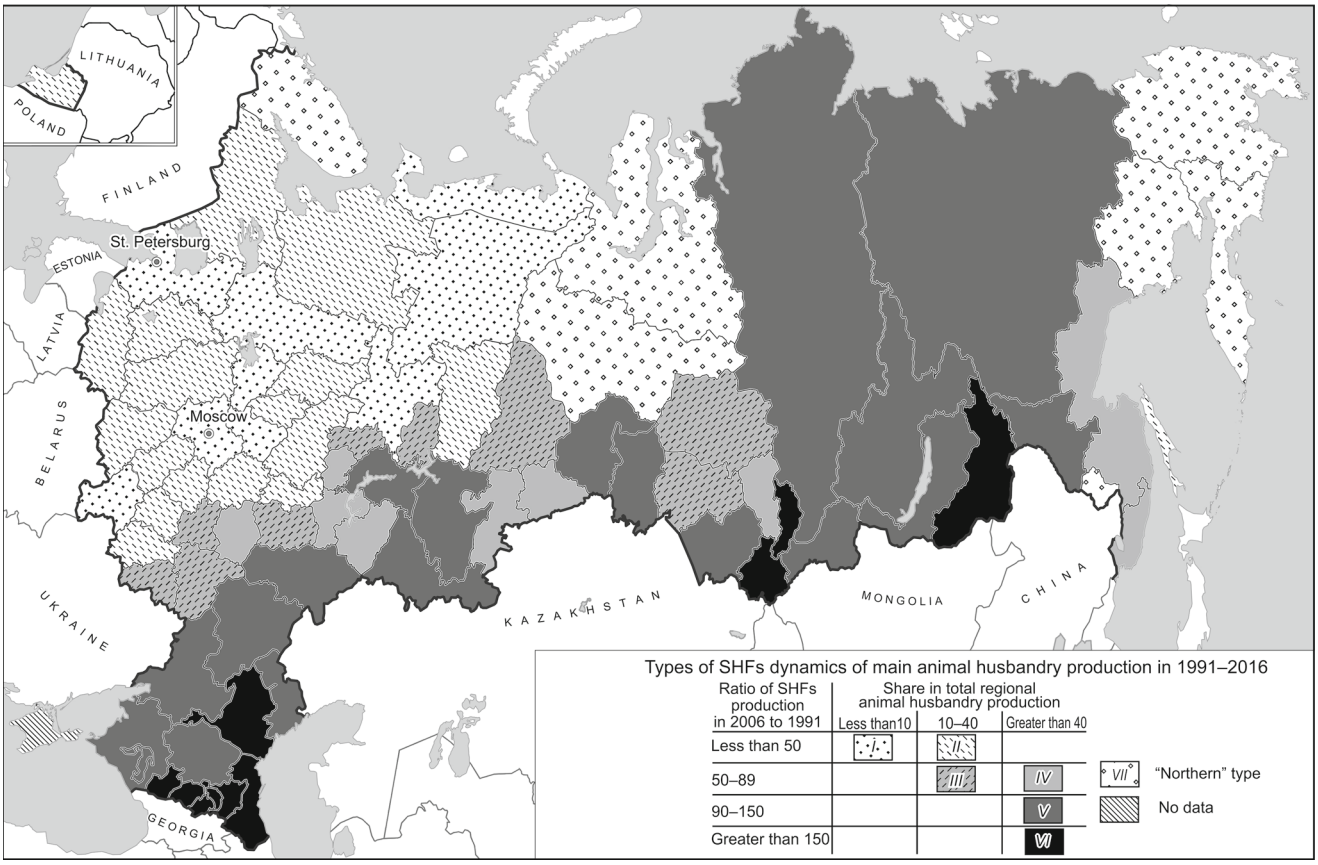

Fig. 5. Types of SHFs dynamics of main animal husbandry production in 1991–2016.

husbandry production output from SHFs; regions into which large agricultural producers are expanding can be added to this type in the long term.

In addition, the ambitions of the population will change with generational turnover, especially in zones of influence of big cities. Researchers report an increase in the number of families that intend to leave behind the least prestigious labor with a low degree of mechanization in SHFs that "claims their health and strength and limits their freedom of movement" [6, 7, 10, 14, p. 164].

Table 2. Regions with highest dairy production on residents' farms, % of total production in Russian Federation

1991		2000		2016	
Republic of Bashkortostan	5.4	Republic of Bashkortostan	5.4	Republic of Bashkortostan	7.6
Altai krai	3.6	Altai krai	3.8	Rostov oblast	6.8
Orenburg oblast	3.1	Rostov oblast	3.8	Altai krai	5.9
Saratov oblast	3	Republic of Tatarstan	3.2	Republic of Tatarstan	4.2
Rostov oblast	3	Saratov oblast	3	Republic of Dagestan	4.1
Republic of Tatarstan	2.8	Novosibirsk oblast	2.7	Saratov oblast	4.1
Omsk oblast	2.6	Omsk oblast	2.5	Orenburg oblast	3.9
Novosibirsk oblast	2.6	Orenburg oblast	2.4	Stavropol krai	3.7
Nizhny Novgorod oblast	2.4	Nizhny Novgorod oblast	2.4	Volgograd oblast	3.3
Chelyabinsk oblast	2.3	Chelyabinsk oblast	2.3	Krasnodar krai	2.9
Total	30.8	Total	31.5	Total	46.5

Source: Unified Interagency Statistical Information System. www.https://www.fedstat.ru/indicator/40694. Accessed on December 20, 2017.

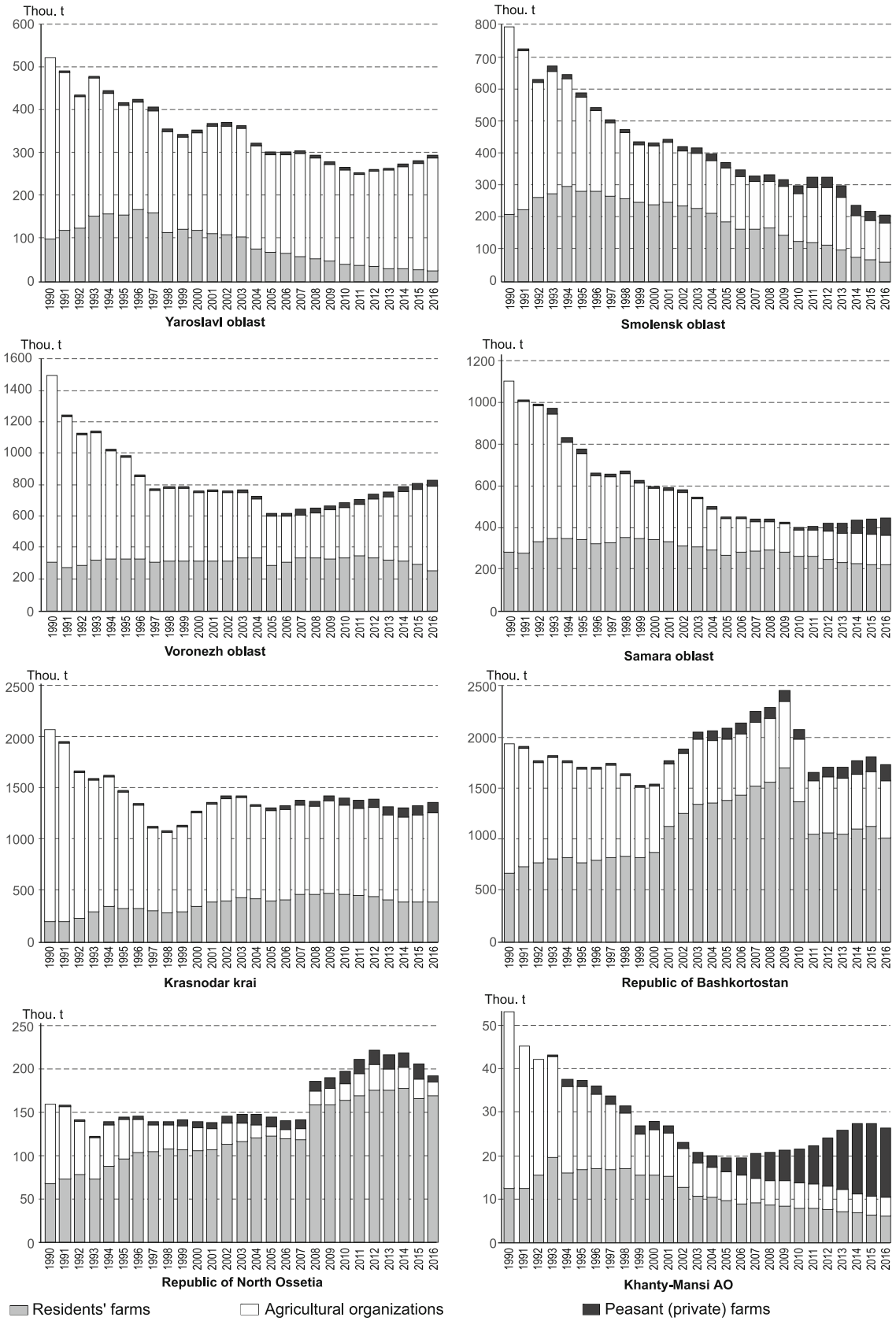

Fig. 6. Dynamics of dairy production by farm categories in selected regions in 1990–2016, thou. t. Source: Unified Interagency Statistical Information System. https://www.fedstat.ru/indicator/40694. Accessed on December 20, 2017.

Whereas SHFs will most probably retain their place in the republics of types *VI*, a nearly plateaued demographic and social modernization, as well as the persistence of traditionalism, will hamper economic growth and aggravate unemployment, while SHFs will perform their habitual function as a means for the population to adapt to unfolding crisis conditions.

Regions of type *V* are the most promising from the viewpoint of SHF development and, therefore, their support, because their conditions are the most advantageous for the development of cooperation in agriculture. There is a reserve of agricultural land and, hence, opportunities for extensive growth of small types of economic management in many regions mainly to the East. In republics and border regions, the cultural traditions of both indigenous ethnic groups and migrants from other national subjects of the Russian Federation and near abroad countries will continue to be an important factor in maintaining SHF output.

CONCLUSIONS

The main stages of the transformation of subsidiary household farming in the post-Soviet period are related to both its quantitative and territorial dynamics and new approaches to interpreting the concept itself.

(1) The increase in the share and importance of subsidiary household farming in the post-Soviet economy was accompanied by blurring of its formal boundaries. First, the then-existing statistical base adopted the broader concept of *residents' farms*, which encompasses agricultural activity of both rural residents and urban dwellers. Second, the boundary between and entrepreneurial and noncommercial activity becomes even more ambiguous and determined by factors outside of agricultural production in itself. Third, SHFs are now increasingly differentiated both within a region and across various regions of the country.

(2) Factors determining the dynamics and geography of SHFs can be divided into three major groups. The first is directly or indirectly associated with natural geographic features, including the agroclimatic potential, main characteristics of the rural settlement pattern, age structure, rural population density, and the degree of impact traditional culture produces on the community. Factors of this group normally interact to produce a common effect, and affect and enhance each other. The second group, with an azonal nature, is characterized by the contradictory effect of large urban centers on SHFs. The third group has the largely negative effect that the new type of large agricultural producers have on SHFs. Agroholdings are primarily profit-oriented and oriented toward minimizing expenditures on supporting the local population.

(3) In the 1990s, the dynamics of agricultural production in regions was largely determined by their internal resources; therefore, at the end of that decade, the distribution of regions by the share of residents' farms to animal husbandry production output was closest to normal. The 2000s saw the increasing effect of factors outside of agricultural production on SHFs, which dramatically increased regional differentiation.

(4) In recent years, a trend has been observed toward a gradual reduction in the share of SHFs to agricultural production output, which primarily occurs owing to regions of Non-Chernozem and the forest–steppe zones. This reduction is only partially offset by growth in production in the southern national republics. Regions of the steppe zone show differently directed trends: residents' farms overall maintain their positions while experiencing pressure from new types of large agricultural producers.

(5) Together with the southward shift in the center of gravity of SHF output, its concentration in the most advanced and densely developed regions of steppe zone has been observed. In 1991, the 12 leading regions accounted for one-third of animal husbandry production from residents' farms and more than half in 2016.

(6) Based on animal husbandry production output data, six major types of subsidiary household farming dynamics can be identified for the post-Soviet period. As their leading factor, the first two types are related to the state of rural area, in other words, its depopulation and shrinking of the rural settlement system; the transitory third and fourth types are associated with aging of the rural population and structural transformation of large agricultural producers. The growth of SHFs in regions of the fifth type relies on the mutually enhanced effects of all major factors, while the sixth type relies on preservation of traditions.

ACKNOWLEDGMENTS

This work was supported by the Russian Foundation for Basic Research (project no. 18-05-00394).

REFERENCES

1. Alekseev, A.I. and Koryukhin, D.A., Inversion of rural urbanization?, *Vestn. Mosk. Univ., Ser. 5: Geogr.*, 2017, no. 5, pp. 103–105.
2. Averkieva, K.V., Dan'shin, A.I., Zemlyanskii, D.Yu., and Lamanov, S.V., Strategic challenges of the development of agriculture in Russia, *Reg. Res. Russ.*, 2017, vol. 7, no. 4, pp. 322–332.
3. Vinogradskii, V.G., Generational transformations of rural communities: elements, forms, and prospects, *Vestn. Sarat. Gos. Sots.-Ekon. Univ.*, 2016, no. 1 (60), pp. 58–62.
4. Ioffe, G.V. and Nefedova, T.G., Center and periphery in Russian regions' agriculture, *Vopr. Progrnoz.*, 2001, no. 6, pp. 100–110.
5. Ioffe, G.V., *Sel'skoe khozyaistvo Nechernozem'ya: Territorial'nye problemy* (Agriculture in Non-Chernozem Zone: Territorial Problems), Moscow: Nauka, 1990.

6. Kalugina, Z.I. and Fadeeva, O.P., New paradigm of rural development, *Mir Ross.: Sotsiol., Etnol.*, 2009, vol. 18, no. 2, pp. 34–49.

7. Kopach, K.V., *Lichnoe podsobnoe khozyaistvo sel'skogo naseleniya i ego integratsiya s predpriyatiyami agropromyshlennogo kompleksa* (Subsidiary Household Farming of Rural Population and Its Integration with Agricultural Complex), Moscow: Rosinformagrotekh, 2002.

8. Lysenko, E.G., Subsidiary household farms: present and prospective development, *Ekon. S-kh. Pererab. Predpr.*, 2008, no. 9, pp. 1–4.

9. Nefedova, T.G., Regionalization in agriculture, in *Regionalizatsiya v razvitii Rossii: geograficheskie protsessy i problemy* (Regionalization in Development of Russia: Geographic Processes and Problems), Moscow: Inst. Geogr., Ross. Akad. Nauk, 2001.

10. Nefedova, T.G., *Desyat' aktual'nykh voprosov o sel'skoi Rossii: otvety geografa* (Ten Topical Issues about Rural Russia: A Geographer's Viewpoint), Moscow: Lenand, 2013.

11. Nefedova, T.G. and Pallot, J., *Neizvestnoe sel'skoe khozyaistvo ili Zachem Nuzhna korova?* (Unknown Agriculture, or Why Do We Need a Cow?), Moscow: Novoe Izdatel'stvo, 2006. In English: Pallot, J. and Nefedova, T., *Russia's Unknown Agriculture. Household Production in Post-Socialist Rural Russia*, Oxford: Oxford University Press, 2007.

12. Maksimov, V.A., *Geografiya sel'skoi mestnosti: Problemy i metody issledovaniya* (Geography of Rural Area: Problems and Study Methods), Rakitnikov, A.N., Ed., Ufa: Bashkir. Gos. Univ., 1992.

13. Nikonov, A.A., *Spiral' mnogovekovoi dramy: Agrarnaya nauka i politika Rossii (18–20 vv.)* (The Helix of the Centuries-Old Drama: Agrarian Science and Policy in Russia (18th–20 th Centuries)), Moscow: Entsiklopediya Ross. Dereven', 1995.

14. Fadeeva, O.P., *Sel'skie soobshchestva i khozyaistvennye ukaldy: ot vyzhivaniya k razvitiyu* (Rural Communities and Economic Structures: From Survival to Development), Kalugina, Z.I., Ed., Novosibirsk: Inst. Ekon. Org. Prom. Proizvod., Sib. Otd., Ross. Akad. Nauk, 2015.

15. Fomina, I.V., Subsidiary household farms as an additional resource for the development of agricultural production (case study of Saratov oblast), *Extended Abstract of Cand. Sci. (Econ.) Dissertation*, Saratov, 2007.

16. Shepeleva, E.A., Development of subsidiary household farms: factors, trends, and prospects, *Extended Abstract of Cand. Sci. (Econ.) Dissertation*, St. Petersburg, 2004.

17. Bogachev, D.V., Transformation of the agriculture in Russia: Significance of present-day vertical integration, *Reg. Res. Russ.*, 2015, vol. 5, no. 4, pp. 392–401.

Translated by E. Kuznetsova