

Human Spatial Mobility and the Role of Dachas in the Old-Developed Areas

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Abstract—This article considers labor and dacha (second home) return migrations in Russia. These types of population spatial mobility have much greater extent than moving to a permanent place of residence. Temporary work outside the place of permanent residence was typical for the old-developed regions around Moscow and St. Petersburg at the beginning of the 20th century. In the 21st century, this has become widespread due to job cuts and wage differences between large centers and small towns with rural areas. The life of citizens in two homes: in the city in winter and in the countryside on dachas (second homes) in summer and on weekends is also typical feature of Russia. The authors attempt to compare the migration flows for permanent residence, labor and dacha migrations in the old-developed regions of the Center of Russia. Two main types of dachas are considered: houses in garden settlements relatively close to cities and houses of citizens in villages, often in remote areas. To study the current and potential dacha development, remote sensing images are used, which make it possible to see not only organized dacha settlements, but also to reveal the actual summer population of rural areas according to the state of rural houses and surrounding territories. The maps show villages with a population of less than 100 inhabitants, which are most popular for urban summer residents and their accessibility from federal roads and small towns. Areas of potential seasonal dacha resettlement of rural areas and zones of its social desertification have been identified.

Keywords: return migrations, labor migration, cities, countryside, garden settlements, dachas in villages, dacha economy, second homes

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RETURN LABOR MIGRATION

With the huge size of Russia and the significant contrasts in the standard of living of the population, vertical population mobility often develops into horizontal mobility. It includes both resettlement for permanent residence and return labor migration between regions and cities of different sizes and rural areas. Migration for permanent residence usually intensifies during periods of political and economic crises or, conversely, economic upswings with the implementation of development ideas. In other periods, return cyclic migrations, both labor and dacha (second home), significantly exceed resettlement ones, but in Russia they have been noted only recently.

The evolution of return labor migrations (*otkhodnichestvo*), that is, temporary work outside the place of permanent residence, was discussed in detail in the book *Between Home and... Home. The Return Spatial Mobility of Population in Russia* (2016). Let us only recall the main stages that are characteristic of the old-developed regions, in which *otkhodnichestvo* is most widespread (Nefedova, 2015, 2021). It was stimulated both by the inability to feed large families of peasants

due to insufficient soil fertility in the Non-Chernozem regions and by the huge need of Moscow and St. Petersburg for workers. For the regions surrounding Moscow, the expansion of *otkhodnichestvo* has been recorded since the 19th century. At the turn of the 20th and 21st centuries in the regions surrounding contemporary Moscow oblast, more than 20% of the male working-age population had *otkhodnik* passports, allowing them to leave the villages to work in the cities (Rybnikov, 1928). According to some estimates, the number of *otkhodniks* in Russia was 5–6 mln people at the beginning of the 20th century, of which about half went to cities and the rest went to the south and east of European Russia (Korolenko, 1892). In the Moscow, Yaroslavl, and Smolensk governorates (*gubernias*), the proportion of males leaving the village for a period ranged from 10 to 40% (Brokgauz i Efron ..., 1897). *Otkhodnichestvo* served as the engine of urbanization; many peasants lived in cities for a long time, abandoning their farms and moving their families to cities. Moscow and St. Petersburg at the beginning of the 20th century were called peasant cities (Danilov, 1974; Janson, 1881; Kurtsev, 2007;

Table 1. The ratio of losses (negative balance of interregional labor migration) and additions (positive balance) to the number of employees in the regions in the Center of Russia, 2017, %

Territory	Losses	Additions
Moscow	0.3	21.9
Moscow oblast	20.6	5.5
Regions adjacent to Moscow oblast	7.4	0.8

Compiled according to the sample survey of the labor force of Rosstat.

Mironov, 1999). *Otkhodniks* in the Center of Russia, even if they periodically returned to their native village, constituted its elite, were literate, and brought urban elements into rural life.

In the first years of the Soviet period, the retreat to the cities continued, and due to the high need of large cities for workers it even intensified in the 1920s. However, collectivization dramatically changed the attitude towards *otkhodniks*. In the early 1930s, registration at the place of residence was introduced. It was impossible to live in cities without a residence permit and the peasants returned to villages. Individual *otkhodnichestvo* was replaced by the official recruitment of rural population for factories and construction in cities. However, unofficial labor departure was practiced, including for women (housekeepers, nurses, and nannies), but the life in a city suggested a precarious existence with the hope of somehow getting a residence permit. The policy of clamping household plots in the time of N. Khrushchev and the high need of cities for workers intensified the desire of the rural population to go to the cities. The departure of the rural population from the old-developed regions, including for shift work, also was provoked by the colonization of the eastern regions. If we take into account the low wages on collective farms, and the fact that pensions for rural population, introduced only in 1964, amounted to 30% of urban pensions, then there were enough incentives for the departure of young people and the middle generation to earn money.

Free *otkhodnichestvo* revived by the 1970s, although it affected the townspeople who temporarily earned money in the north and east of Russia. In Soviet times, such shift work was called *vakhta* (watch).” Only in recent years it has been replaced by the pre-revolutionary term “*otkhodnichestvo*” (Plyusnin, 2013), return labor migrations (Mezhdu ..., 2016; Florinskaya et al., 2015; Nefedova, 2014, 2015), and commuting (although the latter is more often used in the study of daily trips to work in another locality).

In the 1990s, in connection with the closure of enterprises in small towns and medium-sized cities and the crisis of collective and state farms, a reserve of unemployed labor appeared. At the same time, the economy of large centers was recovering, largely due to

the post-industrial sector. Security guards, builders, sellers, drivers, medical workers, etc. were required. This raised a new wave of return labor migrations. At the same time, the difference between contemporary *otkhodnichestvo* is that it concerns not only the rural population, as at the beginning of the 20th century, but also the population of small towns, medium-sized and even some large cities. Unlike shift migrations to oil regions to the North and East, labor migrants from the old-developed regions to large cities are characterized by short rhythms with a schedule: a week or two at work, the same time at home; 20 days at work, 20 at home; 1 or 2 months at work, the same time at home. In the regions closest to Moscow oblast, a work regime is practiced during the day and night with 3 days off or departure on working days of the week with days off at home. Similar forms of “nearby” migration exist in the peripheral areas of the regions when working in their administrative centers.

Data from a sample survey of the labor force make it possible to see the scale and direction of return population movements for labor purposes. In 2018, 62% of all labor migrants in Russia went to the Central Federal District, including 53% (1.5 mln people) to Moscow, which formed one-fifth of the entire labor force of the capital (Table 1). Another 6% was absorbed by Moscow oblast. St. Petersburg attracted about 8% of Russian labor migrants. Only Tyumen oblast with autonomous okrugs (12.2%) could compete with them, and even then, due to the rotational workers of the Khanty-Mansi and Yamalo-Nenets autonomous okrugs. Tyumen oblast itself attracted only about 2% of Russian labor migrants (Nefedova, 2021).

Moscow and Leningrad oblasts suffered the greatest losses, giving up to 20% of their own labor resources to Moscow and St. Petersburg, although they partially replenished the labor force at the expense of the surrounding regions. Almost all the old-developed areas of the Center of Russia around Moscow oblast experienced significant losses of workers (Fig. 1)¹. At the same time, tension in the labor markets occurs in them (Antonov, 2019, 2021). Proximity to the capital, employment options, and pay gradients in and around the capital were the main factors. The All-Russian Population Census of 2010 also gave an increased share of *otkhodniks* from rural areas in the old-developed regions of the Center of Russia (Fig. 2).

In general, the old-developed regions adjacent to Moscow oblast supplied about one-third of all *otkhodniks* working in the Moscow capital region (Moscow and Moscow oblast) in the 2010s, while in the regions surrounding it, it was difficult to fill even the existing vacancies in the public sector and in agricultural farms.

¹ The borders of Russia are considered in accordance with the Constitution of the Russian Federation adopted by popular vote on December 12, 1993, with amendments approved during the All-Russian vote on July 1, 2020.

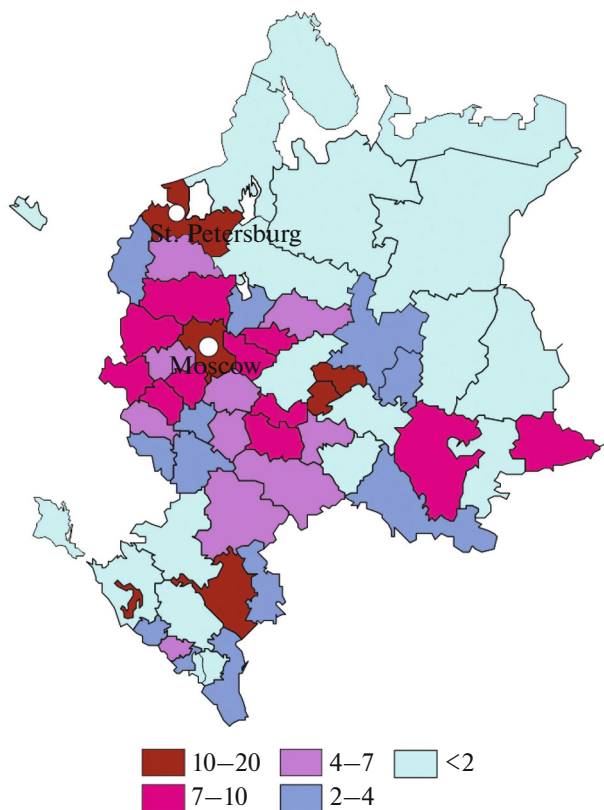


Fig. 1. The share of the population leaving for work in other regions to the labor force aged 15 to 72 years, %.

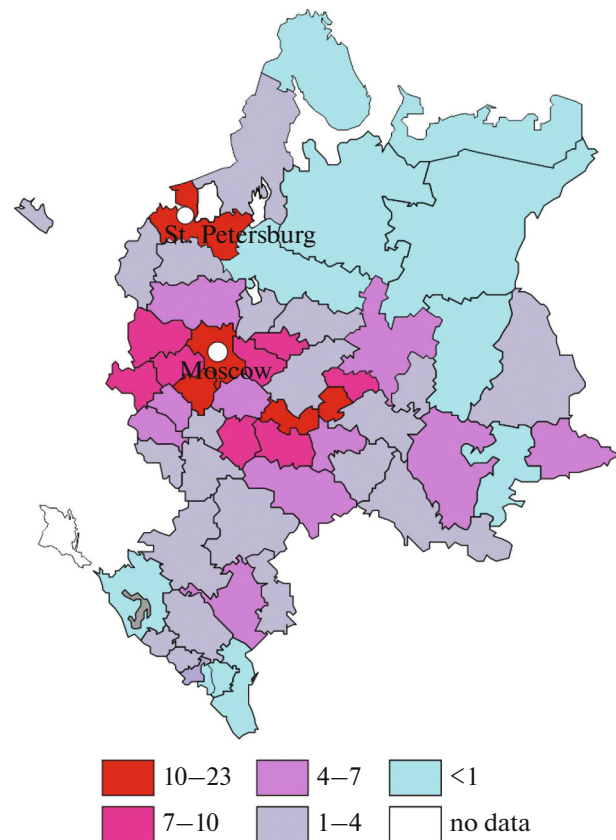


Fig. 2. The share of the rural population working in another region to the rural population of working age, %.

Contemporary *otkhodnichestvo* has become the only way to maintain an acceptable way of life for the vast mass of people living outside the big cities. The spread of *otkhodnichestvo*, replacing migration to permanent place of residence, shows the specificity and inconsistency of the contemporary labor market in Russia. Although *otkhodniks* serve as conductors of large city values in villages and small towns, they themselves, being “neither in the village nor in the city,” often drop out of social life both at home and in the place where they work. They get used to a half-free way of life (one works for 2 weeks or 1 month, then is free for the same amount of time), it is difficult for *otkhodniks* to return to daily routine work, even if vacancies appear in their place of residence. Temporary labor migration is becoming a kind of trap that does not make it possible to implement a sustainable socio-economic life strategy (Mezhdu ..., 2016, p. 100; Moiseenko, 2004).

A special role among labor migrants is played by immigrants from countries that were part of the Soviet Union. In recent years, they accounted for 80–90% of all those who entered Russia to work (according to the Russian Ministry of Internal Affairs²). In 2017–2019

² <https://xn--b1aew.xn--p1ai/Deljatelnost/statistics/migracionnaya/item/19365693/>. Accessed April 14, 2020.

in the regions surrounding the Moscow capital region, about 1 mln international migrants were registered annually. This is slightly less than in Moscow oblast (1.4–1.7 mln people), but significantly less than in Moscow (3–4.5 mln people). More than half of these migrants stay at their place of residence for 2 years or more (Shcherbakova, 2019). The main purpose of the visit among all those who were initially registered was work (Table 2). Family members of migrants often enter for private purposes, although many of them work illegally.

The number of annually arriving foreign labor migrants who, after obtaining a residence permit or citizenship of the Russian Federation, enter the category of the population with long-term or permanent residence outside Moscow oblast is small decreasing (with the exception of Kaluga and Tula oblasts). The new generation, who grew up in the post-Soviet era, know Russian language less and are more rooted in their countries, and Russian citizenship simply makes it easier for them to earn money in Russia (Poletaev, 2020).

Some Russian labor migrations, including those from the old-developed regions, end with resettlement to Moscow and Moscow oblast, which is why the surrounding regions continue to lose permanent popula-

Table 2. The share of people entering for different purposes among the initially registered international migrants, on average for 2017–2019, %

Territory	Work	Private purposes	Tourism	Study	Other
Moscow	63	18	13	4	2
Moscow oblast	53	39	4	2	2
Regions adjacent to Moscow oblast	46	24	18	4	8

Source: (Nefedova and Starikova, 2020).

Table 3. The migration increase (decrease) of the population for permanent residence in Moscow, Moscow oblast, and surrounding regions per year on average for 2014–2018

Territory	Migration increase (decrease)					
	thous. people		thous. people per 10000 population		people per 100 km ²	
	interregional migrations	international migrations	interregional migrations	international migrations	interregional migrations	international migrations
Moscow	79.3	12.2	64	10	3050	471
Moscow oblast	73.1	16.8	100	23	165	38
Regions adjacent to Moscow oblast	–22.1	25.9	–22	25	–6	7

Source: (Nefedova and Starikova, 2020).

tion, although international migrants are registered in them. These changes are especially evident if they are recalculated for the territory area (Table 3). In recent years, for every 10 × 10 km in Moscow, there were annually more than 3000 people from other regions of Russia and about 500 international migrants who moved to a permanent place of residence. For Moscow oblast, these figures were 165 and 38 people, respectively.

RETURN POPULATION MIGRATIONS TO DACHAS

Two processes are observed in the 20th and 21st centuries: the relocation of city dwellers to the suburbs and the approximation of living conditions and work opportunities in them to urban ones (suburbanization), and the migration of urban residents to villages, which are sometimes remote from cities (deurbanization) (Mezhdu ..., 2016; Nefedova, 2015; Nefedova and Starikova, 2020). In the first case, both urban and rural communities are included in the universal processes of mass consumption, which leads to the leveling of differences between them. In the second case, this is a conscious change in lifestyle. If the first develops in Russia in the nearest areas outside the city limits,³ then the desire to move to a more remote

rural area (including with an undeveloped elementary infrastructure) for permanent residence is much more common in social networks than in life. It is typical for individual enthusiasts and pensioners. *Dacha* use by townspeople in the countryside is much more widespread in Russia. It is true that during periods of economic and epidemiological crises (including the coronavirus pandemic in Russia in 2020), temporary flight from cities, especially from Moscow and St. Petersburg, intensifies, including to *dachas* for a longer time.⁴

For Russians, the use of *dacha* is both living in two houses (in a city and a suburb or in a rural area), and recreation for citizens with nostalgia for nature and their garden, and capital investment with greater freedom of arrangement, and specific agricultural activities for self-sufficiency in vegetables and berries. This is a single phenomenon for which there is no other term, although in official Russian documents the word “*dacha*” is usually absent. For researchers, the *dacha* theme is becoming increasingly important (Gorozhane ..., 2016; Makhrova et al., 2017; Mezhdu ..., 2016; Nefedova, 2015; Nefedova and Pallot, 2013; Treivish, 2014; and etc.).

Noble estates on which the owners in the 19th century lived in the summer months, spending the winter in St. Petersburg or Moscow, can be considered as the

³ See the article by A.G. Makhrova *The Moscow Capital Region: An Example of Accelerated Development* in this special issue.

⁴ See the article by A.G. Makhrova and T.G. Nefedova *The Year of COVID: A Migration Reversal?* in this special issue.

prototype of dachas in Russia. On the eve of 1917, the total number of dachas near Moscow reached 20000 (Khauke, 1960). After the summer rental of dachas typical to mid-20th century, since the 1950s, limited distribution of land for private dachas and mass distribution for collective gardens and vegetable gardens with plots of 4–6 acres began. The second wave of the spread of gardening associations in rural areas among the townspeople is typical for the 1970–1980s. Both waves were associated with the aggravation of the food problem in the country. Nevertheless, the agricultural component was only one of the plots' functions, along with the desire for nature and the intention to have their own home, albeit small. The people the property in such gardening associations as well called the dacha. Since the 1980s, it has become increasingly popular for residents of big cities to buy rural houses in villages. It grew on the basis of expanding inheritance and the sale of village houses by children who moved to the cities after the death of the elderly. Citizens of large cities rushed for dacha property in villages for temporary summer residence in remote areas of the Center and Northwest of Russia.

The massive spread of dachas in the Soviet and post-Soviet periods significantly slowed down the classical suburbanization and deurbanization in Russia with a change of place of residence (Mezhdu ..., 2016). The presence of a dacha in the suburbs allows one to combine the advantages of living in the city and in nature, but requires active movement between them. Cottage settlements have been added to traditional suburban dachas, Soviet and post-Soviet gardening and dacha associations, however a significant part of the houses in this settlements are also used seasonally. The purchase of village houses with their use in the summer season pushes the dacha zones of Muscovites to a distance of up to 500–600 km from the capital (Averkieva and Nefedova, 2016). Not only in Moscow oblast, but also in the surrounding old-developed areas of the Center of Russia, the number of city dwellers in summer dachas becomes comparable to the rural population (Figs. 3 and 4). In some places dacha settlements become an important factor in real, albeit seasonal, settling.

The scale of return dacha migrations, especially around large urban centers, exceeds all other types of population migration. Table 4 reflects an attempt to compare dacha migrations (the part of them, concerns in most mass garden and dacha associations) with migrations for change permanent residence place and return labor migrations. For this, Federal State Statistics Service (Rosstat) data were used, as well as data on the number of plots in garden and dacha associations, that were obtained as a result of interpretation of satellite images (Makhrova et al., 2016) (Table 4).

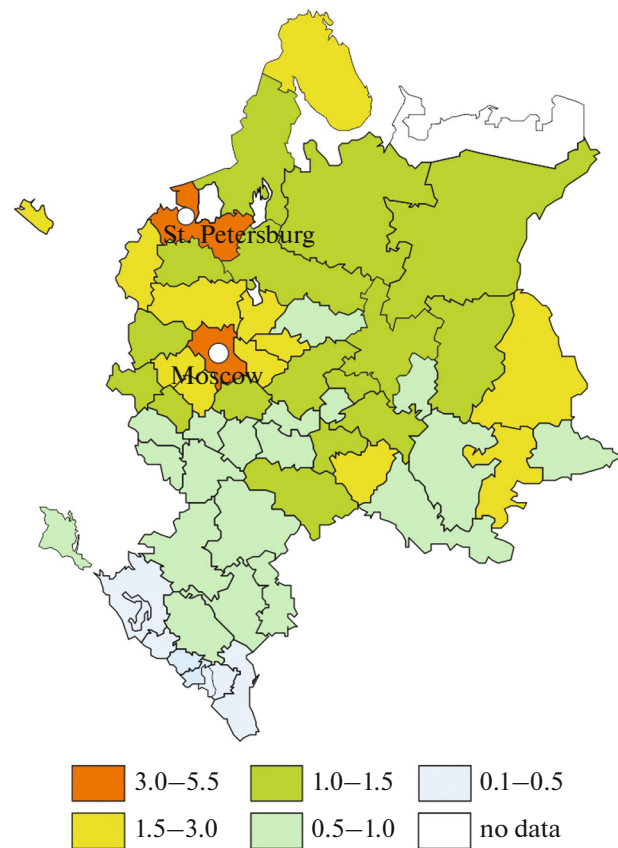


Fig. 3. The ratio of the number of dacha households of urban residents in organized garden and dacha settlements to the number of households of rural residents, number of times.

Source: (Nefedova, 2021).

SATELLITE IMAGERY APPLICATION IN THE STUDY OF POTENTIAL RE-DEVELOPMENT OF RURAL AREAS BY DACHAS OF CITIZENS

As a rule, dacha settlements are concentrated around cities, forming a dense network that is not considered by official statistics (Makhrova et al., 2016). Their contribution to the employment of the local population and the development of the suburban economy is quite significant. Often, such settlements are grouped in conglomerates of different sizes with a population in summer season from several hundred to tens of thousands of people (Shchepetkova, 2018). Most of them are in Moscow oblast. They gradually expanded north and west from the capital (Moskovskii ..., 1988), but their density decreased noticeably with distance from the borders of Moscow. However, even then, dacha settlements formed lanes along railways and roads radiating from Moscow, the gaps between which also filled with dachas over time (Fig. 5).

By the end of the 20th century the dacha settlements of Muscovites and residents of Moscow oblast

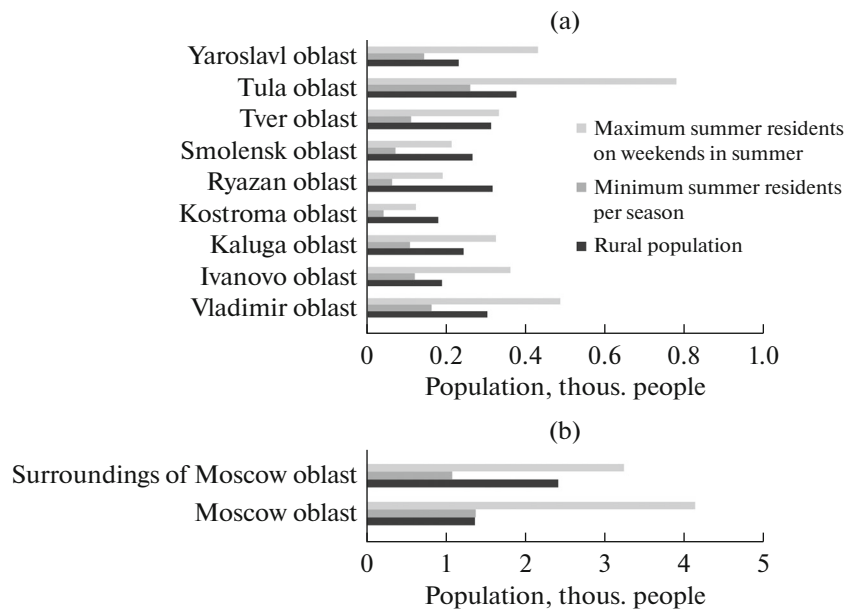


Fig. 4. The number of urban summer residents in garden and dacha settlements and in rural settlements in the regions of the Center of Russia (a), in Moscow oblast and its surroundings (b).

Calculated according to the data of the All-Russian Agricultural Census of 2016, with the assumption that the minimum number of summer residents on the dacha plot in the summer season is 1 person, the maximum on weekends is 3 people.

cities “splashed out” outside Moscow oblast. In the surrounding regions, in addition to the suburbs of regional centers, from 30 to 50% of all gardening associations are concentrated in municipalities adjacent to Moscow oblast from the outside (Mezhdu ..., 2016). Taking this garden-dacha settlement into account, attempts were repeatedly made to identify the pulsation of the boundaries of the Moscow urban agglomeration and its population (Makhrova, 2021; Makhrova et al., 2012; Prostranstvenno-vremennoi ..., 1988, pp. 160–167). Most of these organized recreational settlements (from 50 to 70%) occupy former agricultural lands. To the north of Moscow, they gravitate more towards the forest edges. Of the other location factors, the presence of water bodies and/or proximity to railways and roads is most important (Nefedova and Medvedev, 2020).

In addition to the dacha settlements concentrated closer to Moscow, Moscow oblast and to the regional centers, it is becoming increasingly popular in Russia for residents of large cities to buy houses in villages, including those remote from urban centers. This has a significant impact on the temporary summer population in rural areas and their sustainability.

The main trend in the settlement pattern of Soviet and post-Soviet Russia is the increasing polarization of rural settlements and the concentration of the population in large villages (Alekseev and Safronov, 2015; Glezer and Veinberg, 2013; Lukhmanov, 2001; Zubarevich, 2013). However, official population statistics show only registered residents in rural areas and

cannot reveal the actual population in a particular place in different time. The data published in statistical handbooks include the supposed rural population that really studies or works in cities for several months and does not appear in villages. At the same time, they do not consider urban summer residents, who increase the population in rural areas by several times in the summer season (Alekseev and Vorob'ev, 2018; Mezhdu ..., 2016).

The specificity of settlement pattern in the old-developed regions, including the distribution of small and abandoned villages, has been repeatedly considered by a number of authors using the case of individual territories, including those that fall into the orbit of our study (Egorova, 2018; Tkachenko et al., 2019; Rumyantsev et al., 2019). The materials of the 2010 All-Russian Population Census show that the old-developed regions around Moscow oblast are characterized by a particularly large number of villages with less than 100 registered inhabitants and without a permanent population (Fig. 6). Their highest concentration is typical for areas with a severe crisis of agricultural enterprises and a sharp decrease in sown areas.⁵ With transport accessibility, such villages become attractive for summer residents.

Study of the real rural resettlement and the use of rural houses by townspeople during the summer season was carried out using satellite images of the state of

⁵ See the article by T.G. Nefedova *Urbanization and Rural Trends in Russia and in Its Old-Developed Regions* in this special issue.

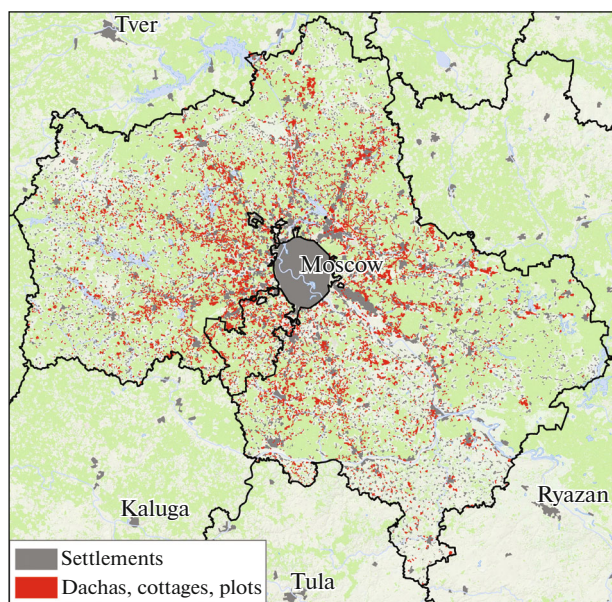


Fig. 5. Modern settlements, garden-dacha and cottage settlements in Moscow oblast according to remote sensing image interpretation.

rural houses and the surrounding area. For example, destroyed roofs and buildings, abandoned and overgrown land around houses clearly indicate the absence of a permanent population (Medvedev and Gunko,

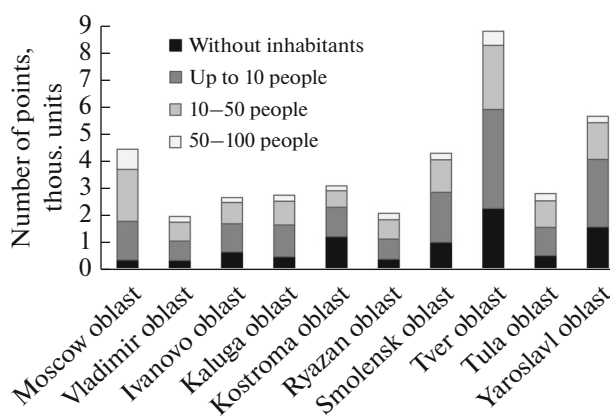


Fig. 6. Settlements without residents and with a population of less than 100 people in the regions of the Central Russia, units.

Calculated according to the All-Russian Population Census of 2010.

2016; Nefedova and Medvedev, 2020). In addition, statistical data, topographic maps (scale 1 : 100000 and 1 : 200000), and materials from the public cadastral map of the Federal Service for State Registration, Cadaster and Cartography (Rosreestr) were used. The combination of these data made it possible to identify settlements that have lost their permanent population, that is, are officially nonresidential (Fig. 7), although

Table 4. The balance of migration for change of permanent residence place and the scale of labor and dacha migrations on average per year in 2017–2018

Territory	Increase (decrease) of population because of migrations for permanent residence place change		Return migrations			
			Migrations for work purposes		Dacha migrations (intra- and inter-regional)	
Total, thous. people						
	interregional migration	international migration	interregional migration	international migration	minimum per season	maximum on a summer holiday
Moscow	96.1	13.9	1467.4	2723.5	–	–
Moscow oblast	64.3	15.8	–562.1	646.0	1381.5	4144.6
Regions adjacent to Moscow oblast	–22.8	28.7	–313.6	322.2	108.2	324.6
People per 1000 inhabitants						
Moscow	8	1	119	221	–	–
Moscow oblast	9	2	–77	88	189	566
Regions adjacent to Moscow oblast	–2	3	–31	32	11	32

Source: (Nefedova and Starikova, 2020).

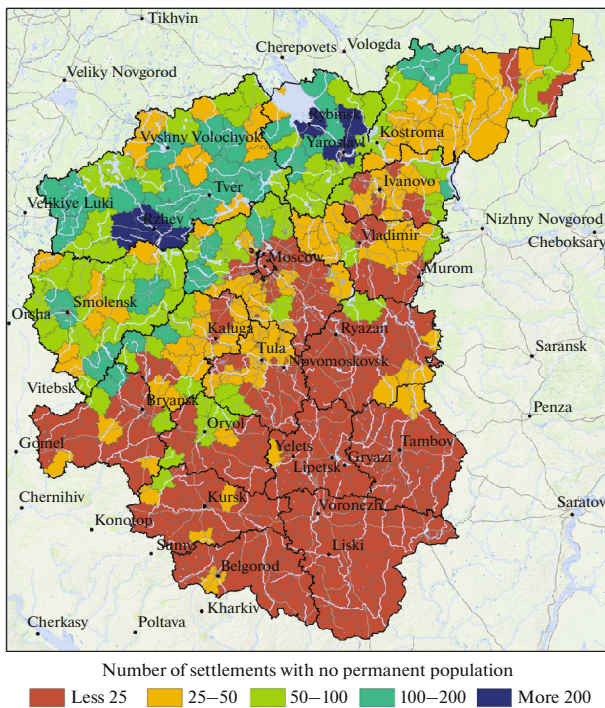


Fig. 7. Number of settlements with no permanent population in the Center of Russia by municipalities.
 Compiled by A.A. Medvedev according to the data of Rosstat, Rosreestr and the results of remote sensing image interpretation.

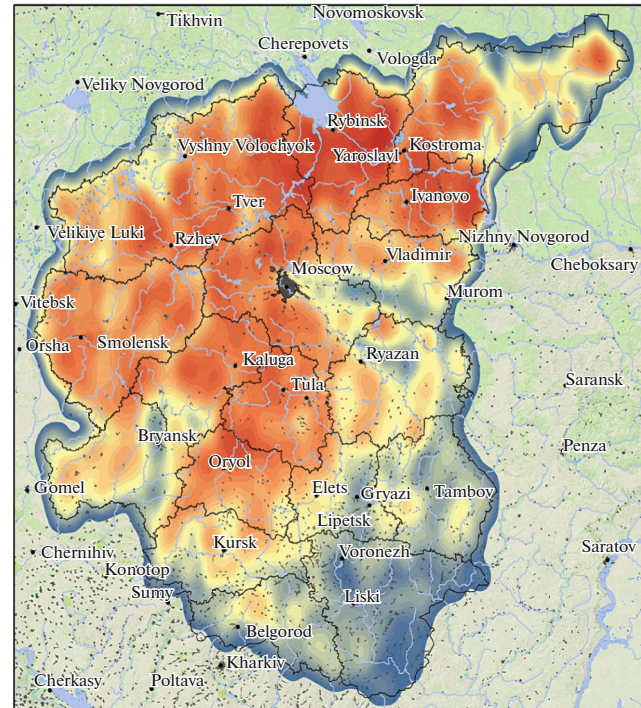


Fig. 8. Zones of increased density of rural settlements, popular among urban summer residents, with a population of less than 100 people.

among them there are those that are used as dacha by city dwellers in the summer months (see Fig. 5).

An analysis of remote sensing imagery data showed that against the background of the outflow of the permanent rural population, especially in the old-developed areas in the west, north, and east of Moscow oblast, many houses in the villages are being preserved and restored. At the same time, a personal household with large areas of potatoes, premises for livestock, etc. is typical only for rural residents, not for owners of dachas. This indicates that the houses are used rather by city-dwellers who come to the countryside not for permanent residence, but for summer, and often for a relatively short (several weeks) vacation in the houses they purchased in villages.⁶ Dacha re-development of territories with shrinking agriculture is also characteristic of European countries (Second ..., 2013; The Routledge ..., 2018), especially for countries with natural conditions similar to the Non-Chernozem zone, for example, Finland (Second ..., 2015).

The popularity of dachas in villages (hereditary or rural houses specially bought by townspeople for summer vacations with plots) has been growing in recent twenty years. There are “dwellers–hermits” who

choose villages abandoned by local residents. However, a survey of many municipalities in the regions of the Non-Chernozem zone showed that townspeople prefer inhabited villages for seasonal recreation, even if there are only a dozen inhabitants left in them, rather than abandoned ones. In general, city dwellers prefer small villages with a population of less than 100 people. Many such villages are characteristic of the semi-circle from the southwest to the northeast of Moscow (Fig. 8).

A detailed study of some Non-Chernozem regions remote from big cities made it possible to single out several waves of expansion of the dacha use of villages by townspeople, including Muscovites at a distance of up to 500–600 km from the capital (Averkiewa and Nefedova, 2016). The first “romantic” wave began in late Soviet times, when young people were still present in the villages and a few townspeople organically fit into rural life for a short vacation period. The second “pragmatic” wave was typical for the early 1990s, when citizens tried to save the villages. Some acquired land, however, they were far from an understanding of the local life, and few were successful and lingered for a long time. In some places, this wave was replaced by a scientific and educational attitude of city dwellers to rural life (Pokrovsky and Nefedova, 2013; Potensial ..., 2014). In recent years, the most characteristic case is the expanding recreational wave of re-development with living in the countryside from 1 month to 6

⁶ See the article by T.G. Nefedova *From City of Kostroma to the Regional Outskirts* in this special issue.

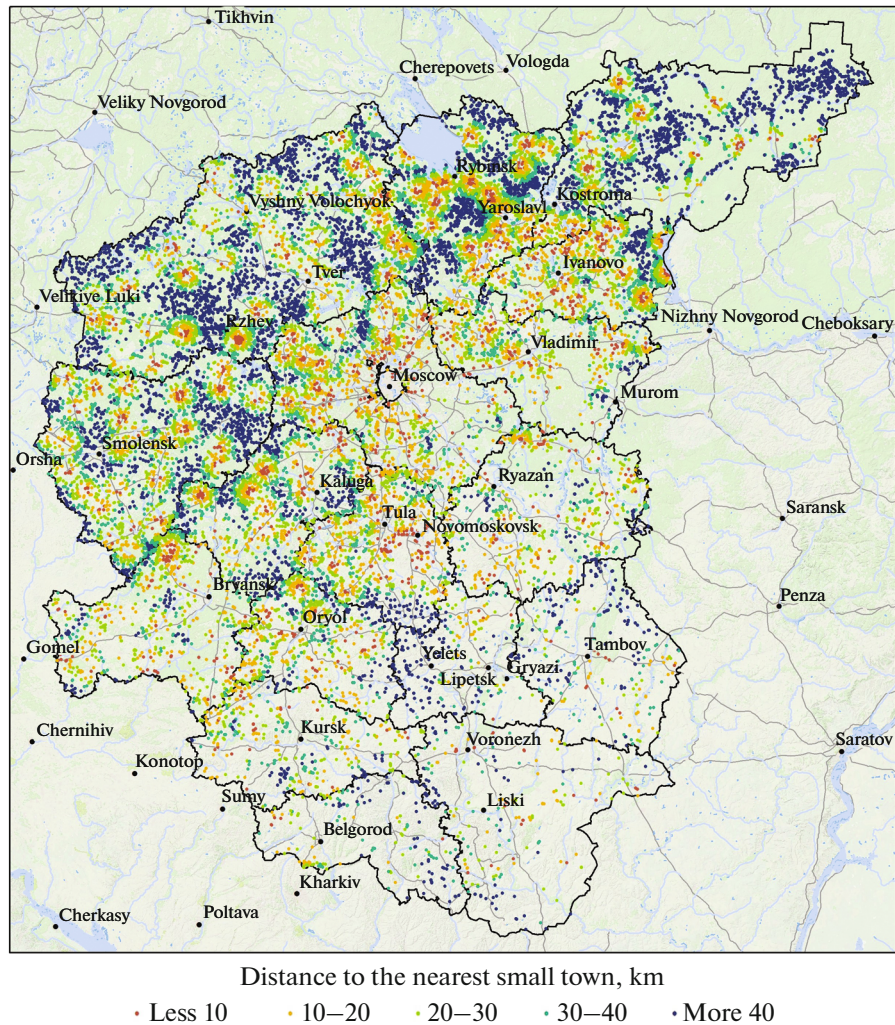


Fig. 9. The distance from villages without a permanent population to small towns, km.

months (urban pensioners), in the last version, with a small garden. They pick mushrooms, berries, swim, walk in a forest, etc. Year-round living is very rare and is typical mainly for people who are forced to leave an apartment to children or live on the income from renting a city apartment. As well as, only a few try to farm or create guest houses, which require enthusiasm and, as a rule, additional urban professional income.

Summer residents in villages, unlike suburban owners of garden and cottage houses, seek solitude in nature, sometimes cultural exoticism. In polls, they name nature, space, silence and, more broadly, ecology as the main attractions. For this, they are ready to put up with everyday inconveniences. They are attracted to small, but still living villages, deserted rural landscapes, everything from that modern rural youth flee to the large cities. Dachas away from urban centers are not as stable as near cities, especially for middle-aged and elderly people. This, in addition to remoteness, is connected with receiving medical care,

the rural network of which disappears under the current policy of uniting settlements.

Despite the fact that the townspeople in the villages are rarely engaged in agriculture, they become noticeable land users, as they acquire ownership of large plots of former vegetable gardens surrounding the villages along with houses, and they even rent additional agricultural land, shutting out from neighbors not by fence, as in the suburbs, but by space. They regularly mow the grass, including to reduce the fire hazard. The social influence of the dacha community on rural life is also great. Despite the seasonality and the relative short duration of their stay, summer residents are in dire need of labor for the repair and improvement of rural houses, and maintenance of plots. They buy berries, fish, and milk from the local population. All this stimulates new types of employment in the surrounding villages and holds back depopulation. With the predominance of the elderly population in small villages, it is the summer residents who become the most

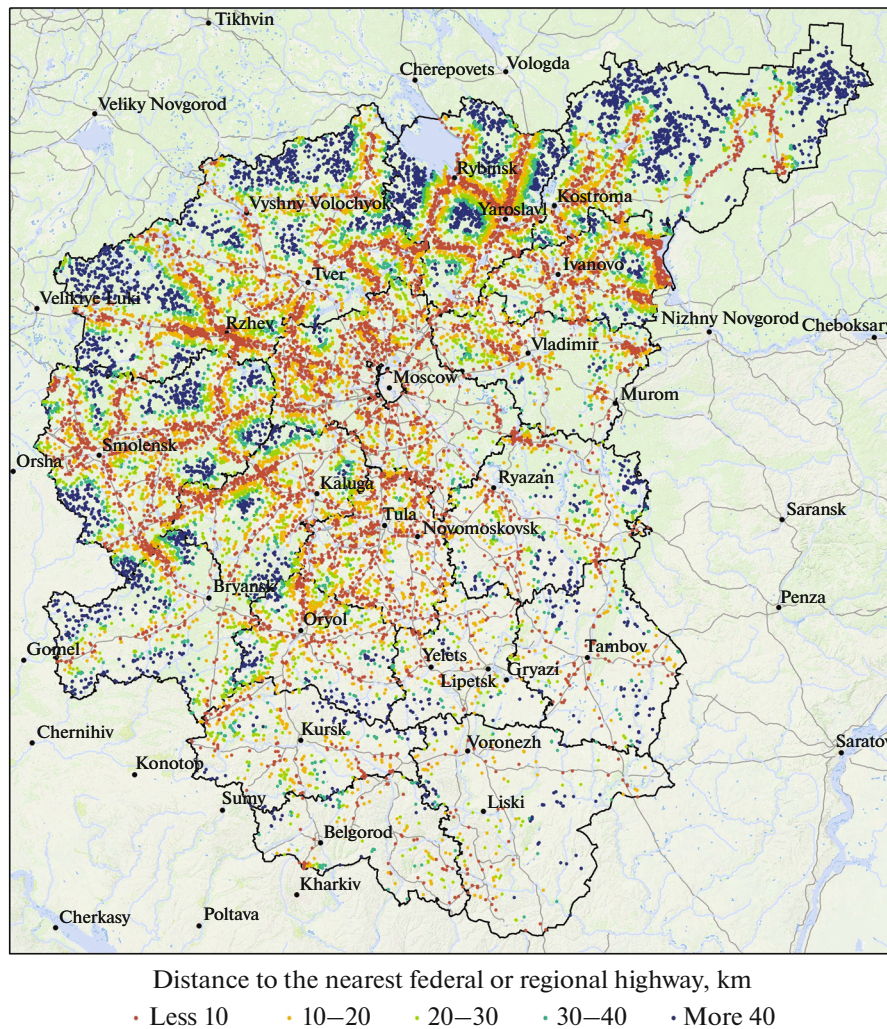


Fig. 10. The distance from villages without a permanent population to the nearest federal highway, km.

active and initiative group who concerned about maintaining the viability of rural settlements.

It is important that, unlike the locals, summer residents are ready and even prefer to live in small villages, thereby preserving the settlement network. The main issue is the accessible by transport and preservation the social infrastructure in the nearest villages and towns (Figs. 9 and 10). However, the main obstacles to the re-development of small villages by summer residents are connected precisely with the reduction of elementary social infrastructure as a result of the consolidation of rural settlements and creation of new urban okrugs and municipal districts.⁷

“Promising” and “unpromising” zones for secondary recreational development of the territory around Moscow by the townspeople are shown in

Fig. 11. They were identified based on remote sensing image interpretation on the localization of garden and cottage settlements and information about small villages that are potentially attractive for summer residents. Using regression analysis, several independent variables were considered, such as distance from highways (Fig. 10) and from regional and municipal centers, and the attractiveness of natural landscapes (the presence of rivers, lakes, forests, etc.), as well as the density of settlements of different sizes (Nefedova and Medvedev, 2020).

In Fig. 11 the promising areas of dacha development go far beyond Moscow oblast, capturing the surrounding regions. In less promising areas to the north, northeast, and west of Moscow oblast, there are certain difficulties in secondary dacha use associated with remoteness, an acute lack of social and road infrastructure, and many completely abandoned villages. On the border of Tula and Oryol oblasts, the “unpromising” zone is due to radioactive contamination.

⁷ See the article by A.I. Treivish, O.B. Glezer, and T.G. Nefedova *Old-Developed Regions in the Waves of Municipal Reform* in this special issue.

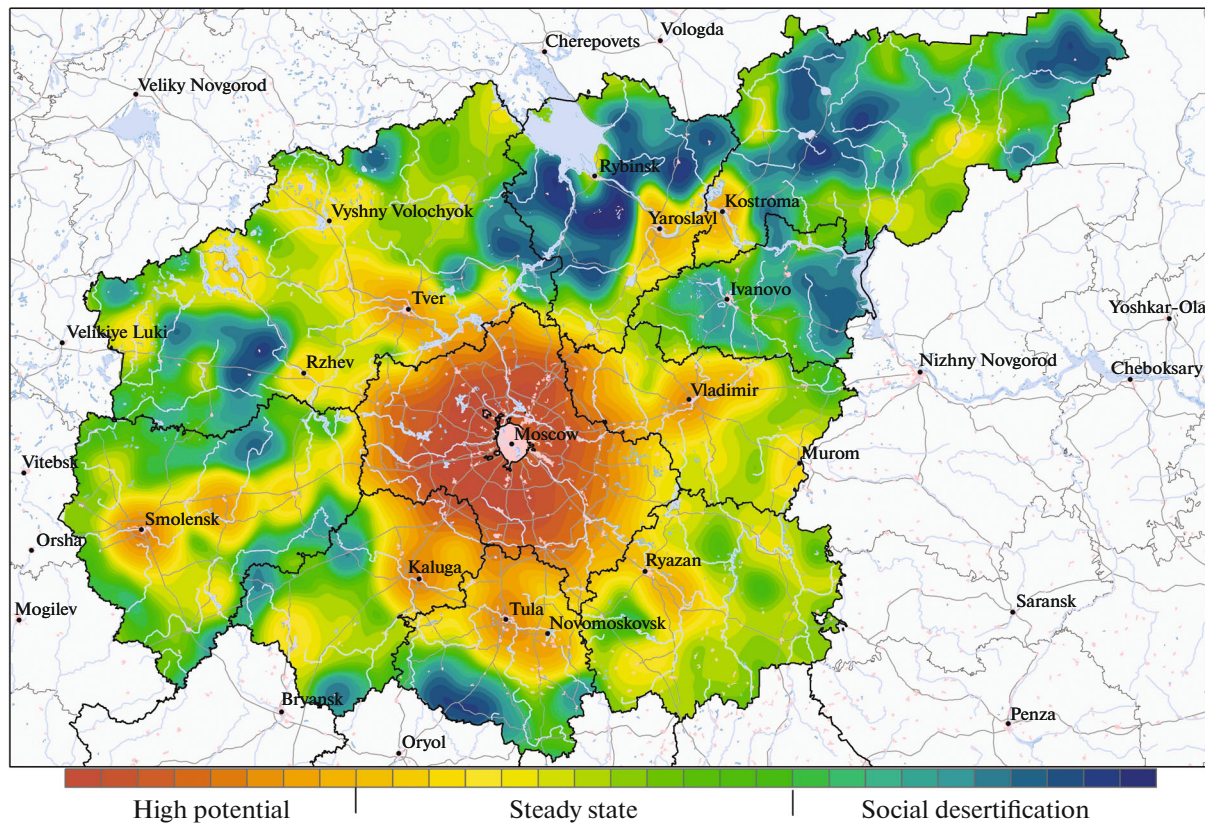


Fig. 11. Zones of potential development of rural areas by summer residents from cities and zones of possible social desertification in the Center of Russia.

Source: (Nefedova and Medvedev, 2020).

tion as a result of the accident at the Chernobyl nuclear power plant.

Unfortunately, it is not enough understanding of the importance of this dacha wave of citizens for maintaining the rural areas. The main focus of authorities at all levels is on the resettlement of citizens for permanent residence in the countryside, for which the urban population of Russia is not yet ready, including due to the lack of paid jobs and disappearing infrastructure.

CONCLUSIONS

Russia is characterized by the widespread return population migration between cities of different sizes and rural areas. They include both labor and recreational (dacha) migrations, which significantly exceed relocation to a permanent place of residence. In the old-developed regions surrounding Moscow oblast is typical a negative balance both of interregional migrations for change of permanent residence place and labor migrations mainly to Moscow and Moscow oblast. Population increases were associated only with international migrations. Within the regions the directions of flows may differ. Nevertheless, it is in the old-developed regions of the Center of Russia that the

most powerful return flow of summer residents from cities exists. It creates a parallel network of pulsating settlements, which is not taken into account by statistics and is not shown on maps. Summer residents stimulate the creation of informal jobs for local villagers and contribute to the development of small businesses. A specific shadow dacha economy is being created, which is extremely important for places from where official enterprises leave. This seasonal urban population plays an important role in maintaining the rural settlement network and development of the territory.

The lack of information about the real population, taking into account its spatial return mobility between cities and rural areas, makes it especially important to use a variety of research methods, including the interpretation of satellite images, to identify the real habitability of rural houses and the territory. It made it possible to identify the prospects for its development and show it on maps. On the other hand, it is the dacha tradition of living in two houses that slows Western-style de-urbanization in Russia, hiding an invisible, albeit seasonal, counter-process. It is important to take this specificity of Russia into account. It is necessary to encourage initiatives to preserve villages by urban

summer residents and to support transport and elementary social infrastructure in them.

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CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest.

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