

RURAL AREAS OF RUSSIA'S NORTH-WEST BORDERLAND: PROBLEMS AND DEVELOPMENT PATHS

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This article focuses on the rural areas of Russia's North-West borderlands, particularly, the municipal districts and towns that are closest to the national border. The study aims to identify problems in the development of these territories and provide solutions to them. The methodological framework employed is the neo-endogenous approach, which suggests the maximal multifunctionality-driven use of internal resources, bottom-up initiatives supported by the authorities, extensive use of innovations, the Internet, and scientific knowledge. The study takes into account and assesses the heterogeneity of rural areas by producing a typology of districts built on the structure of agricultural production, using the Hall-Tideman index.

The study used several indicators to identify the role and place of border districts in their respective regions. Three types of districts were distinguished according to the structure of agricultural production: districts dominated by agricultural organisations, districts dominated by small farms, and mixed-type districts. Cross-district differences in output dynamics were described. The socially essential functions of rural areas and the economic entities performing those functions were identified. The analysis of the recreational resources of border districts helped to determine the directions in which the transformation of rural areas into consumer spaces was moving. The major development trajectories of rural areas were plotted using the non-endogenous approach and differentiated by the district types. The rural areas of the North-West borderlands were confirmed to have a unique and diverse resource potential that is sufficient to ensure their sustainable development based on the non-endogenous approach.

Keywords:

rural development, functions, multifunctionality, geographical image, image, brand, neo-endogenous approach

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Introduction

Most rural areas of border districts are on the periphery, distant from the district centres or large industrial hubs. These areas have a low population density and their economic engagement is limited. They differ from mainland territories in various ways, including in terms of demography. Most border districts are depressed despite their numerous development resources.

A spate of recent articles [1–5, and others] has studied the borderlands of the Russian Federation. Most of these works, however, consider the phenomenon at the meso-level and thus do not give a full picture. Few works examine the development of rural border areas at the micro-level, particularly, in North-West Russia. As for the other regions, the literature focuses on transboundary cooperation mechanisms [6; 7].

Nowadays, when intergovernmental relations are complicated, and Russian borders are losing their contact functions, transboundary cooperation can hardly be considered as a factor in the development of rural border areas. Transboundary region-building at Russian borders is occurring rather slowly [8, p. 86]. For this reason, the study concentrates on the search for internal micro-level factors affecting the development of borderlands. To this end, it employs a range of available research approaches.

Rural studies are carried out in Russia by experts in various fields, including agricultural economists [9–15], sociologists [16–20], and social geographers [21–24].

Agricultural economists link the problems of rural development with agricultural production, while sociologists link them with the formation of human and social capital. At the same time, geographers view rural areas through the lens of settlement patterns evolution paying attention to urban residents' exurb gardening communities, rural recreation, and 'dacha studies' [21–23]. An interesting case is *Ugorskiy Proekt* (the Ugric Project), which monitors rural life with immersion in the social environment of the village [22]. Many geographical studies are interdisciplinary [17; 20; 22], which proves to be beneficial. Nevertheless, the majority of rural studies are discipline-specific with specialists in different fields using different methodological approaches as well as incompatible terminological and conceptual frameworks.

Rural development is systemically studied across the world with a plethora of articles published on the subject. The *Rural Planning and Development* collection provides an overview of 'the key concepts of rural development with

a broad range of representative published sources included' [25]. In recent decades, international literature has discussed the paradigm shift in rural development and the search for new avenues within the discipline [26]. This trend has been, to some extent, embraced by Russian researchers [15; 16]. Many of them insist on replacing the exogenous approach, which relies on external factors, with the endogenous one, which makes maximum use of local resources. The latter places emphasis on spatial planning rather than on industrial rural development, with all that that entails [27].

The scientific search for new avenues for rural development continues. The earlier concept of non-endogenous development is being revised [28]. Special attention is being paid to place branding [29], the multifunctionality of rural areas [30; 31], the 'rural web' concept [26; 32], and the role of social capital in rural development [32; 33].

The literature also considers other aspects of rural development addressed below. Emphasis is put on agricultural production, which remains the key industry in the territory that is home to 80 % of the population of the north-western borderlands.

This study aims to identify problems in rural development in Russia's north-western borderlands and search for ways to solve them in the near future.

It aims to achieve the following objectives:

1. to determine how border districts perform on selected key indicators at the regional level;
2. to identify the socially significant functions of rural areas;
3. to explore the inhomogeneity of rural areas as regards their production performance;
4. to search for marketing decisions aimed to unlock the non-productive functions of rural areas;
5. to outline promising avenues for rural development in the near future.

Methodology

The study employs a non-endogenous approach to rural development, which suggests bottom-up mobilisation of border districts' internal resources and top-down support for local initiatives. It views rural areas as consumer spaces, employs the concepts of multifunctionality and place branding, as well as exploits innovations, the Internet, and scientific knowledge.

The study relies on Rosstat data, the author's previous research results, information available online, and theoretical findings of Russian and international experts.

In describing agricultural production inhomogeneity across rural areas, the study uses a district typology based on the Hall-Tideman index measuring the concentration of agricultural production for agricultural organisations, farms, and private households [34].

Another method employed along with the method of typology is the generalisation. The resultant index, which demonstrates the effect of inhomogeneity on rural development, comprises the coefficients of average annual agricultural production growth rate in constant prices.

North-western border districts and their regional role

The rural borderlands of Russia's North-West comprise twenty-nine districts of five regions (the Republic of Karelia and the Kaliningrad,¹ Leningrad, Murmansk, and Pskov regions) that border on Norway, Finland, Estonia, Latvia, Lithuania, Poland, and Belarus.

Border districts account for over one-third of the area and 24 % of the population of their regions. Their population density is below the regional average (table 1).

Table 1

**The regional ranking of border districts by area, rural population,
and its density, as of January 1, 2019**

Russian region	Border districts as a proportion of the regional total, %		Rural population density, people per km ²	
	Area	Population	Region	Border districts
Republic of Karelia	41.9	28.1	0.7	0.4
Kaliningrad region	50.3	40.6	14.8	12.0
Leningrad region	15.7	15.3	7.9	7.6
Murmansk region	37.9	42.9	0.4	0.4
Pskov region	27.3	26.8	3.3	3.2
<i>Total</i>	34.7	24.0	2.6	1.8

Prepared by the author based on Rosstat data.²

¹ I do not consider the Zelengoradsk and Mamonovo districts of the Kaliningrad region because they have some special features.

² Rosstat. Municipal database. URL: http://www.gks.ru/free_doc/new_site/bd_munst/munst.htm (access date: 08.08.2019).

The Kaliningrad region stands out, as its border district accounts for half of its territory and over 40 % of its rural population. The region's rural population density is the highest in Russia's North-West.

As to agricultural production, the ranking of border districts is determined by arable land, crop area, and agricultural output (table 2).

Table 2

The share of border districts in the regional arable land area, crop area, and agricultural production across all types of economic entities, %

Region	Arable land		Crop area		Agricultural output	
	2006	2016	2006	2016	2008	2017
Republic of Karelia	31.9	23.4	22.1	6.2	18.7	17.4
Kaliningrad region	58.3	63.2	61.9	65.5	48.4	50.7
Leningrad region	18.4	16.2	17.7	16.7	15.7	17.0
Murmansk region	92.4	44.8	47.1	47.7	59.4	59.9
Pskov region	26.5	20.8	20.9	19.1	20.0	56.6
<i>Total</i>	32.9	29.4	35.2	33.8	24.9	32.8

Calculated by the author for 2006 and 2016 based on data from³ and for 2008 and 2017 based on data from⁴

³ The results of the 2006 Russian agricultural census. The Republic of Karelia. URL: http://krl.gks.ru/wps/wcm/connect/rosstat_ts/krl/ru/census_and_researching/census/national_census_2006/score_2006/35; The results of the 2016 Russian agricultural census. The Republic of Karelia. URL: http://krl.gks.ru/wps/wcm/connect/rosstat_ts/krl/ru/census_and_researching/census/national_census_2016/score_2016; The results of the 2006 Russian agricultural census in the Kaliningrad region. URL: https://kaliningrad.gks.ru/All_Russian_Agricultural_Census_2006; The final results of the 2016 Russian agricultural census in the Kaliningrad region. URL: https://kaliningrad.gks.ru/All_Russian_Agricultural_Census_2016; The results of the 2006 Russian agricultural census. The Leningrad region. URL: http://petrostat.gks.ru/wps/wcm/connect/rosstat_ts/petrostat/ru/census_and_researching/census/national_census_2006/score_2006; The final results of the 2016 Russian agricultural census in the Kaliningrad region. The Leningrad region. URL: <https://petrostat.gks.ru/folder/33448>; The results of the 2006 Russian agricultural census. The Murmansk region. URL: <http://www.gks.ru/news/perepis2006/totals-osn.htm>; The final results of the 2016 Russian agricultural census in the Kaliningrad region. The Murmansk region. URL: http://murmanskstat.gks.ru/wps/wcm/connect/rosstat_ts/murmanskstat/ru/census_and_researching/census/national_census_2016/score_2016; The results of the 2006 Russian agricultural census in the Pskov region. URL: <https://pskovstat.gks.ru/vshp2006>; The final results of the 2016 Russian agricultural census in the Pskov region. URL: <https://pskovstat.gks.ru/vshp2016>.

⁴ Rosstat. The municipal database. URL: http://www.gks.ru/free_doc/new_site/bd_munst/munst.htm (access date: 08.08.2019).

In the regions under study, border districts account for about a third of arable land, crop area, and agricultural output in their respective regions. The Kaliningrad region makes the greatest contribution to this proportion. It comprises 63 % of all arable land and a third of agricultural output in North-West Russia.

When comparing tables 1 and 2, it is clear that, while home to 24 % of the rural population, border districts produce a third of regional agricultural goods. Therefore, rural border areas have an important role in regional agricultural production. The indices demonstrate a tendency towards a growing contribution of border districts to agricultural output in their regions and a reducing share of the arable land and crop area. At the same time, land use is becoming increasingly efficient.

The multifunctionality of rural areas

The term ‘place function’ was coined by the eminent geographers Aleksey Mints and Vladimir Preobrazhensky in 1970. They defined the ‘place function’ as a part of geographical space that has or can have a certain function in the life of society and thus meets, or is capable of meeting, a certain need of a society, its part, or a person [35, p. 120]. According to Mints and Preobrazhensky, a place can perform a variety of functions either simultaneously or consecutively [ibid], i.e. it can be multifunctional.

In the USSR, the idea of multifunctionality was first applied to rural areas in 1980 by Tatyana Zaslavskaya, Rozalina Ryvkina, and other researchers. They proposed to distinguish the functions of population replacement and control over the territory along with the production function of rural areas [36].

The contemporary non-endogenous approach to rural development uses the concept of multifunctionality when exploring rural areas: these territories are viewed from the perspective of productive and social functions. At the same time, rural areas are considered as consumer spaces, whose products have use-value and can be sold.

Russian researchers have considered in detail the problem of agriculture and rural areas [11 – 13]; one of the publications summarises the existing approaches [15, p. 7].

In this research, rural border areas are deemed to have production, demographic, social, recreational, and ecological functions; they also fulfil the functions of control over the territory, of maintaining natural and cultural landscapes, and of preserving the historical and cultural heritage in rural areas.

For borderlands with border-zone restrictions on movement and economic activities, the control function has both special features and a particular significance.

The agricultural production function of rural areas is fulfilled by the traditional categories of economic entities: agricultural organisations (AO), farms (F), and private households (PH); whereas the forestry production function is carried out by logging companies (LC). This function is also performed by business structures across various fields of material production that rely on local resources.

Forest management units (FMU), forestry enterprises and conservation areas (CA) fulfil a range of important functions: control over the territory, maintenance of natural and cultural landscapes, as well as the recreational and ecological functions (table 3).

Table 3

The distribution of rural area functions by economic entities

Function	AO, F, PH, etc.	LC	FMU, FE, CA	Municipal organisations	Business structures
Production	+	+	-	-	+
Demographic function	-	-	-	+	-
Territory control	+	-	+	+	-
Natural and cultural landscape maintenance	+	-	+	-	-
Social function	+	+	+	+	+
Historical and cultural heritage preservation	-	-	-	+	-
Recreation	+	-	+	+	+
Ecological function	+	-	+	+	-

The performance of the production function by economic entities depends on both the demand for the relevant products and the availability of resources in rural areas.

**The production function of rural areas.
Border district differentiation**

To study the production function of rural areas, there was a typology of border districts developed based on production concentration indices for each economic entity type and the structure of agricultural production.

This typology is the key to evaluating the situation and providing a rationale for rural development options. Each of the categories has a particular set of characteristics: scale, intensity, marketability, and production competitiveness. The concentration of a category in a certain territory determines how people live and how production and the social sphere are organised there.

Calculation of the Hall—Tideman index and generalisation of the results allowed to identify three types of districts depending on the parameters of agricultural production: AO-dominated (type I); F and PH-dominated (type II); mixed (type III).

This district typology shows that the areas of rural territories and the rural population are divided almost in equal proportions between types I and III, which account for 31.5 % and 84.5 % of the total respectively (table 4).

Table 4

A typology of north-western border districts by agricultural production structure as of January 1, 2019*

District type	Number of districts	Average rural population density in the group, people/km ²	Area		Rural population	
			1,000 km ²	Proportion of the total, %	1,000 people	Proportion of the total, %
I	6	7.5	15.1	14.0	113.5	41.6
II	8	1.5	76.0	70.7	42.5	15.6
III	10	7.1	16.4	15.3	117.0	42.9
<i>Total</i>	24	2.5	107.5	100	273.0	100

*The Murmansk region is not taken into account

Prepared by the author based on data from⁵.

Agricultural production in the districts under study has different development trends (see figure).

⁵ Rosstat. The municipal database. URL: http://www.gks.ru/free_doc/new_site/bd_munst/munst.htm (access date: 08.08.2019).

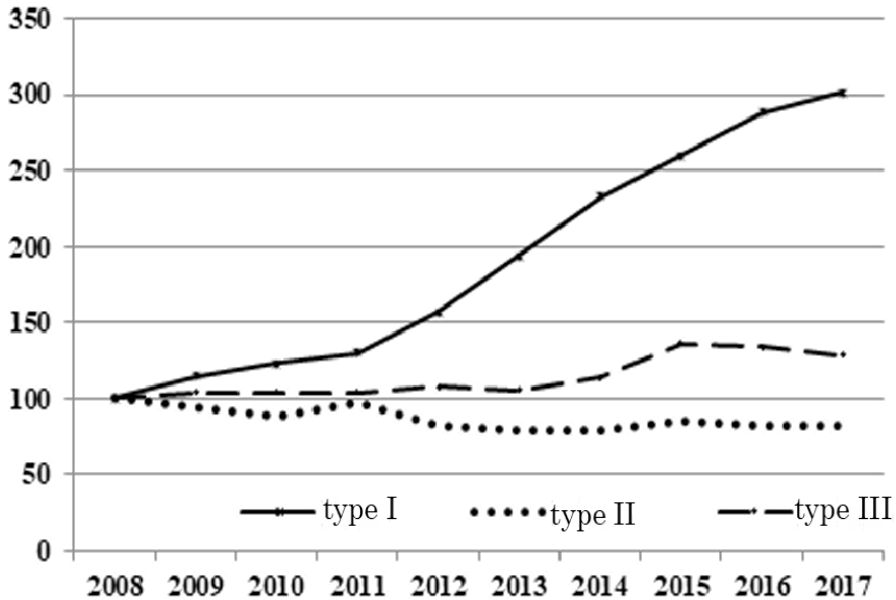


Fig. Changes in agricultural output across all the categories of economic entities in North-West Russia by border district types identified based on production structure, 2008 = 100 %

Prepared by the author based on data from ⁶.

In type I districts, agricultural output increased threefold over the study period. Their contribution to the borderland total shifted by 21 percentage points, whereas the specific weight of type III and II districts decreased by 5 percentage points.

Most of the output growth in type I districts was accounted for by large holding companies specialising in pig breeding and fattening as well as egg production. Unfortunately, high output growth rates achieved through economies of scale have an adverse effect on rural areas as production concentrates locally.

1. Large livestock breeding facilities harm the environment and create an alarming social situation.

2. Measures to prevent outbreaks of infections (bird flu, African swine fever) include slaughtering private households' livestock near large agricultural facilities; sustainable development of rural areas depends heavily on private households.

⁶ Rosstat. The municipal database. URL: http://www.gks.ru/free_doc/new_site/bd_munst/munst.htm (access date: 08.08.2019).

3. In the North-West, large pig and poultry breeding companies use concentrated feed with most of its grain components produced outside the region. Local lands are not involved in economic circulation; this impedes the development of contiguous rural areas.

Agricultural production in type II districts, most of which are found in the Republic of Karelia, is declining. Without targeted measures, small farms, which constitute the core of agricultural production and have a prominent role in creating jobs and providing rural residents with incomes, will continue to reduce their output.

In type III districts, agricultural production is slightly increasing; most of this growth is accounted for by the agricultural organisations that are the backbone of private households and farms. The literature suggests that AO-dominated type III areas are associated with greater development opportunities for smaller economic entities than type II districts, where AOs are almost absent. A rational combination of AO, F, and PH in the production structure creates good conditions for rural areas to perform production functions as well as generates an environment for the development of these territories.

The border districts of the Republic of Karelia and the Murmansk and Pskov regions have a low potential for development through agricultural production. These districts, however, have various resources that can transform under certain conditions into a powerful impetus for rural development attained by implementing non-productive functions.

Non-productive functions of rural areas

Most non-productive functions involve the same resources and organisations. The recreational function, which includes spa treatment, tourism, amateur sports, amateur fishing, dacha recreation and gardening, takes advantage of the consumer properties and/or historical and cultural objects.

Most natural tourist attractions are conservation areas, which perform the ecological function as well as the functions of natural landscape maintenance and of control over the territory. Rural areas are home to many historical and cultural objects, some of which are cultural heritage sites (CHS).

The key function is the recreational one. It binds together all non-productive functions and introduces natural and historical-cultural values into the consumer space. Therefore, this function should utilise the geographical image of a territory.

When discussing a territory as a consumer space, contemporary authors (particularly economists) employ the concepts of image and brand without exploring the geographical image.

However, such studies should adopt the following scheme: the geographical image → image → brand.

In responding to the absence of the first element, Irina Vazhenina proposed a category of 'territorial individuality', which she defines as 'the general sum of characteristics that distinguish one territory from another' [37, p. 149].

In my opinion, this new category is superfluous since it falls within the scope of the concept of the geographical image, which is defined as the sum of characteristics that clearly and concisely describe a territory and are expressed in signs, symbols, stereotypes, and key ideas [38; 39].

Vazhenina defines the place image as a 'totality of feelings and figurative, emotional ideas that people have about nature, climate, history, ethnography, socio-economic, aspects, politics, mentality, and other characteristics of that territory' [37, p. 154].

In their definition of the image, Ovchinnikov et al. [40, p. 102] refer to qualitative characteristics of a territory (along with its distinctive features). This understanding is very close to the concept of geographical image accepted in the general system of place branding.

Some works identify the geographical image with the image [41]. This approach does not seem justified.

The definitions of the geographical image and the place image suggest that these concepts are not to be confused: the former reflects an objectively described reality, whereas the latter is an IT-induced subjective perception of that reality. The place image does not turn a territory into a consumer space albeit contributes to such a transformation.

The next stage is the place brand, which is a 'generalised image that is clearly identifiable among other territories; it is based on actual advantages positioned in the image field' [40, p. 103].

This and other definitions suggest that the brand is a product of a positive place image that reflects the originality and uniqueness of a territory and serves as a stereotype affecting the consumer's choice of tourism, recreation, and other services.

The north-western border districts boast substantial natural and historical-cultural resources. These resources are necessary for rural areas to perform non-productive functions, develop image-building tourism and recreation infrastructure, create place brands, and generate consumer spaces that reflect certain aspects of the geographical image of rural areas (Table 5).

Table 5

**Conservation areas and cultural heritage sites in the rural areas
of Russia's north-western borderlands**

Rural areas	CA	CHS ¹
	total/including those of federal significance	
Republic of Karelia, total	32/7	373
including Kalevala district	4	23
Kostomuksha district	3/2	40
Lakhdenpokhya district	7/1	35
Loukhi district	3/2	40
Muezerskoe district	4/1	57
Sortavala district	4/1	39 ²
Suoyrvi district	7	139
Leningrad region, total	15/1	171/6
including Vyborg district	12/1	66/4
Kingisepp district	3	82/2
Slantsy district	—	23
Murmansk region, total	29/3	26/1
including Kandalaksha district	9/1	1/1
Kovdor district	2	—
Kola district	11/1	6
Pechegsky district	7/1	19
Kaliningrad region, total	18/1 ³	42 ⁴
including Bagrationovsk district	5	11
Krasnoznamensk district	1	—
Neman district	1	5
Nesterov district	7	13
Pravdinsk district	—	12
Slavsk district	4	1
Pskov region, total	11/3	475/32
including Gdov district	4/2	60/5
Krasnogorodsk district	—	16
Nevel district	1	73/2
Palkino district	1	37/2
Pechory district	3	210/22 ⁵
Pytalovo district	1	31
Sebezh district	1/1	36/1
Usvayty district	—	12

¹ Archaeological heritage sites are not taken into account; ² Valaam Island and the Valaam Archipelago, which are home to 260 CHS, ten of them are of federal significance; ³ The Curonian Spit is part of the Zelenogrask district; ⁴ In the Kaliningrad region, war graves of regional significance were not considered as CHS; ⁵ Excluding the nineteen elements of the architectural ensemble of the Pskov-Pechory Monastery.

Prepared by the author based on data from⁷.

⁷ The state register of cultural heritage sites (historic-cultural monuments) of the peoples of Russia. URL: <https://kartarf.ru/dostoprimechatelnosti> (access date: 10.08.2019); The list of conservation areas of Russia. URL: <http://oopt.aari.ru/oopt> (access date: 10.08.2019).

Table 5 provides a general idea of the non-productive image of rural areas. The aggregate measures relating to natural and cultural-historical objects say nothing about the inner inhomogeneity of the latter. The structuring of aggregate measures makes place images even more multi-faceted.

Apparently, the geographical image of rural areas comprises both zonal and azonal phenomena. As a rule, the former are of natural and the latter of historical-cultural origin. This provided the basis for juxtaposing the geographical images typical of border districts with current image characteristics and thus facilitated the first step towards analysing emerging place brands. Table 6 shows some of the results obtained.

Table 6

The geographical images, image-building objects, and emerging brands of the borderland rural districts of North Karelia and Lake Peipus districts in the Pskov region

Geographical image	Image	Place brand
Loukhi, Kalevala, Kstomuksha, and Muezerskoe districts, Republic of Karelia		
Uplands with mountain regions up to 300—500m and higher, covered with forests and northern taiga-vegetation. The region's many rivers have numerous rapids and waterfalls. There are plenty of small, medium, and large lakes as well as remarkable historical villages.	The Kalevala, Paanajärvi, Kostomuksha national parks; conservation areas; protected marshlands, river rapids; the rivers Keret and Pistojoki; Lake Kuyto; rune-singing villages; the Kalevalatalo ethnocultural centre	Ecological; ethnographic; water and agricultural tourism; fishing and hunting
The Gdov and Pechory districts of the Pskov region		
The territories bordering Lake Peipus in the west and east; mixed forests with natural sites, historical fortifications, religious monuments, and recreational and agricultural tourism infrastructure	Lake Peipus; the Remdovsky conservation area; natural sites: the Sorokovoy forest, the Izborsk-Malskoe valley, Semska Island, the Western shore of Lake Peipus, the Izborsk open-air museum; the Izborsk and Gdov fortresses, the Malskoe Monastery, the Truvor fortress, the Trutnevo Caves, the Chernovo and Khalalhalnya manors, the Seto Museum, and an eco-farm	Historical and cultural; religious; ethnographic; agricultural tourism; family tourism; dacha-focused recreation

Prepared by the author based on⁸.

⁸ The state register of cultural heritage sites (historic-cultural monuments) of the peoples of Russia. URL: https://kartarf.ru/dostoprimechatelnosti_ (access date: 10.08.2019); The list of conservation areas of Russia. URL: <http://oopt.aari.ru/oopt> (access date: 10.08.2019).

Many borderland districts of Russia's North-West (both those included in Table 6 and those not included) have a sufficient image potential to fulfil the non-productive functions of rural areas causing them to evolve into consumer spaces with specific place brands.

Dacha-focused recreation may have an important role here. Its principal objects are dacha communities and villages with urban residents' 'second homes'. The data of the 2016 Russian agricultural census (2016 RAC) suggest that, in the north-western borderlands, gardening and dacha communities are strongly localised (table 7).

Table 7

**Key characteristics of non-profit gardening and dacha communities
in Russia's north-western borderlands**

Border district	Number of communities, units	Total area, ha	Including that in private use	Number of land plots in private use, units	Average plot area, ha
Non-profit gardening communities					
Vyborg	382	6477.6	5226.4	60074	0.087
Kingisepp	71	1678.9	1375.9	19110	0.072
Bagrationovsk	53	1600.7	1239.9	16103	0.077
Total	506	9757.2	7842.2	95287	0.082
Oter	96	1048	742.6	9104	0.082
Total	602	10805.2	8584.8	104391	0.082
Non-profit dacha communities					
Vyborg	164	3124.7	1440.8	6860	0.210
Kingisepp	20	198.7	58.6	170	0.341
Gdov	60	616.1	501.5	135	3.715
Total	244	3939.5	2000.9	7,165	0.279

Prepared by the author based on⁹.

⁹ The final results of the 2016 Russian agricultural census in the Kaliningrad region. URL: https://kaliningrad.gks.ru/All_Russian_Agricultural_Census_2016 (access date: 10.08.2019). The final results of the 2016 Russian agricultural census in the Leningrad region. URL: <https://petrostat.gks.ru/folder/33448> (access date: 10.08.2019). The final results of the 2016 Russian agricultural census in the Pskov region. URL: <https://pskovstat.gks.ru/vshp2016> (access date: 10.08.2019).

The dacha and gardening infrastructure is localised in the Vyborg and Kingisepp districts, which are home to 75 % gardening and 98 % dacha plots of the north-western borderlands. There are also dacha communities in the Gdov district of the Pskov region. Most of them fall into the premium category with two-three members per community and 3.7 ha per member. In the Kaliningrad region, gardening communities concentrate near the regional capital, in the Bagrationovsk district, whose gardening plots comprise 86 % of the regional total.

Borderland districts account for 28.6 % of dacha recreation objects in the Leningrad and 100 % in the Pskov region. When allowing for the area, the localisation coefficients are 1.82 and 2.88.

The area of dacha plots in border districts accounts for 15.1 % of the regional total in the Leningrad region, 17 % in the Kaliningrad region, and 8.7 % in the Pskov region. The localisation coefficients are 0.96, 0.34, and 0.25 respectively.

The north-western borderlands have pronounced areas of dacha-focused recreation. Most other recreation activities are also localised in these limited territories. Most rural areas remain dacha-free, probably, because of the traffic and economic activity restrictions of border zones. Another reason may be the remoteness of borderlands from urban agglomerations.

Major rural development trajectories

Rural development through local resources is possible when these resources (land, forests, recreation infrastructure, etc.) are available to be commercialised by the local population. To this end, it is necessary to establish local communities according to the national law on municipalities. The existing legal framework should be extended to include the whole range of rural economic activities with corresponding local resources ascribed to each activity.

A sine qua non is social capital, that is, the 'ability of individuals, groups, organizations and institutions to engage in networks, cooperate, employ and use social relations for the common purpose and benefit' [32, p. 87]. The formation of social capital in mostly depressed rural areas is a difficult but solvable problem. This hypothesis has been proven in practice by Gleb Tyurin in the Arkhangelsk region, the Republic of Komi, and other Russian regions [42].

The formation and acceleration of social capital require a greater engagement of local community foundations (local initiative support funds) as well as Internet and mobile access throughout rural areas. The formation of social capital and

creation of an environment favourable for solving some other problems of rural development will contribute to the emergence of rural webs, which bring together companies, organisations, rural communities, entrepreneurs as well as research, academic, and public institutions active in various fields in the territory of border districts. Information exchange, search for innovations and partners, the creation of a place image, and the promotion of a place brand within a single information space makes it possible to reduce substantially the transaction costs associated with the incompleteness of information and its dispersion across websites representing various sectors of the border districts' rural economy.

An important tool for the development of remote rural areas of border districts is local production networks (local markets) with short supply chains. They enable farms, individual entrepreneurs, private households, small and medium agricultural organisations, and co-operatives to sell their produce.

When applied to a concrete border district type, general trajectories of rural development assume specific characteristics.

In *type I districts*, there is a need for environmental protection and conservation measures. It is necessary to prevent further concentration of production facilities and create conditions for the development of small and medium agricultural organisations, farms, and private households.

Type II districts have to tackle unemployment associated with reduced logging and agricultural activities. There are two possible solutions to the problem. One is the comprehensive use of forest resources, including timber, wild plants (mushrooms, berries, herbs) and commercial animal species. The other is the creation of place images and brands based on the non-productive functions of rural territories.

Type III districts should pay special attention to the agricultural organisations that do not produce sufficient agricultural output growth rates. Agricultural organisations create important social goods: they contribute to the development of smaller economic entities (particularly, farms) and the fulfilment of such functions as control over the territory, agricultural landscape maintenance as well as social functions. Therefore, in type III districts, agricultural organisations require full support. The role of farms in the development of these territories will be growing. An increase in the number of farms creates conditions favourable to the emergence of agricultural consumer co-operatives, which are an important rural development institution.

In the districts that have major recreational facilities, it is important to promote a corresponding image. Such areas with the already existing image should build a place brand facilitating the evolution of rural territories into consumer spaces. The above has particular significance for the districts that have been losing their productive functions.

Bottom-up initiatives may appear and succeed in border districts if the federal and regional authorities create necessary conditions. The rural areas of those districts require special regimes for investment attraction, innovation, and business development. These regimes should be adopted using a procedure similar to free economic zone mechanisms.

Conclusion

The article provides a microlevel-overview of rural development in the north-western borderlands to identify possible trajectories of locally-driven development.

The results obtained suggest that the areas under study have a versatile and unique resource potential that is sufficient for their sustainable development based on a non-endogenous approach.

The 'frontline' districts of the north-western borderlands account for a third of their regions' areas, 24 % of the regions' population, over 30 % of the arable lands, and a third of the total agricultural produce. Rural areas fulfil a number of non-productive functions: recreation (including tourism), environmental protection, control over the territory, and others.

Rural areas differ in the structure of agricultural production. Three types of districts are distinguished: those dominated by agricultural organisations (25 %), by smaller economic entities (33 %), and by both (42 %). The study identified the problems characteristic of each type and outlined the ways to solve them.

To activate the non-productive functions of the rural areas, it was proposed to explore their geographical images, identify image-building objects and potential brands, and take measures to promote the latter. All of the above will facilitate the transformation of rural areas into consumer spaces.

The article deliberately did not consider transboundary cooperation, which requires a special investigation. Nor did it consider the demographic function of the rural border areas: a meso-level study was carried out by Gennady M. Fedorov [1], whereas the available information is insufficient for micro-level research.

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