

CORE ASPECTS OF TYPOLOGICAL CLASSIFICATION OF BORDER REGIONS AND COASTAL REGIONS

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Abstract

This article discusses the theoretical aspects of regional economic systems. Particular attention was paid to the nature of the development of border regions and coastal regions under new geopolitical circumstances. The special aspects of the functioning of those territorial units in the Russian Federation and the Commonwealth of Independent States (CIS) were illustrated.

The author has highlighted the role of the border effect which is closely related to border infrastructure (border crossings, border inspection and customs posts, communication, service, and logistics) as well as the possibility of exploiting the potential resources (land, forest, water, and leisure) extensively on both sides of the border. Great emphasis was put on the forms of international cooperation between inhabitants of border regions, institutions and organisations.

PODSTAWOWE ASPEKTY TYPOLOGIZACJI REGIONÓW PRZYGRANICZNYCH I NADMORSKICH

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Słowa kluczowe: regiony przygraniczne, regiony nadmorskie, limologia, typologia, klasyfikacja regionów.

Abstrakt

W artykule omówiono teoretyczne aspekty regionalnych systemów ekonomicznych. Szczególną uwagę zwrócono na specyfikę i warunki rozwoju regionów przygranicznych i nadmorskich w nowych warunkach geopolitycznych. Przedstawiono szczególne aspekty funkcjonowania tych jednostek terytorialnych w Federacji Rosyjskiej i Wspólnocie Państw Niepodległych (WNP).

Podkreślono rolę efektu przygraniczności ściśle związanego z takimi elementami, jak: przejścia graniczne, posterunki kontroli granicznej i celnej, łączność, serwis i logistyka. Zwrócono także uwagę na możliwości wykorzystania zasobów gruntowych, leśnych, wodnych i rekreacyjnych po obu stronach granicy. Szczególną uwagę poświęcono formom współpracy międzynarodowej mieszkańców terenów przygranicznych oraz instytucji i organizacji tam działających.

Theoretical aspects of the classification of regions

The development of border regions is closely linked to limology. Limology (from *limes* which in Latin means a border) is a science that studies social phenomena integrally related to border processes; it literally translates as “border studies”. Limology not only analyses state borders, but also studies map delimitation and demarcation for all the existing national boundaries.

The development of coastal border regions entails the participation of the Russian Federation’s economy in the global economy where of utmost importance is an international division of labour. Globalisation, integration of the Russian market with the global market, and the accession of Russia to the World Trade Organisation make economic operators ponder their competitiveness and “survivability” due to the development of an innovative economy, the introduction of the finest goods and services to the market and ensuring the economic security of a country in the face of economic crises and turmoil. Under such circumstances, the significance of coastal border regions is on the increase. New challenges and changes in the development of the economy render it necessary to think of a new way of perceiving circumstances for the development of coastal border regions.

There are various methods of classifying, including topological classification, regions in the literature on the subject. Similar papers have been written about border regions as well. Despite this, rules and criteria for highlighting border regions, especially coastal border regions, have not been adequately set forth yet. Geographers, for instance, study border areas – and it is completely the right thing to do – taking into account their own criteria as they identify, e.g. border areas with a distance up to 100 km or a time between 1.5 h and 2 h to the border of a state. Those areas as natural objects have their own natural characteristics, distinctive features and landscape; thus they may be studied.

Economists find such an approach to that quite problematic. According to most economists, a region is an area characterised by specific methods of management and governance, correlations between individual industries and companies with close internal relations, and having its own local state authority. This is usually

a district, a country, or a republic. Obviously, in this case, it is not possible to apply the criterion of a distance up to 100 km to the border. In other words, a border region would need to be divided into parts. Therefore, in the literature of economics, border regions are areas within the administrative boundaries of the Russian Federation. Naturally, there are economists who prefer different methods and different approaches, but usually they employ their own original set of formulas and determinants of regional development. Thus, a “border region” means a region within the boundaries of the Russian Federation.

There are over 100 ways to define the concept of “region” which are similar in terms of meaning, but also in terms of methodology and research methods used to establish what it denotes in a more or less reasonable and logical manner. However, there are significant discrepancies in the typology and classification of border regions as to how to identify border regions and cross-border regions.

Therefore, a border region is an area located in the immediate vicinity of the state border and characterised by distinctive additional potential in terms of development and international cooperation; it is an area affected by its boundaries and the border effect.

A border effect consists of the following: geographical location of a border region; developed border infrastructure (border crossings; border inspection and customs posts; communications, logistics, services and other infrastructure); the possibility to extensively exploit the potential resources (land, forest, water, and leisure) on either side of the border; the possibility to engage a large group of inhabitants of a given region and various institutions and organisations operating there in international cooperation; development of international business cooperation; the active exchange of goods and services among territorial units which are situated at the border, etc (BILCHAK et al. 2018).

What is particularly important is that border regions include areas of strategic and defensive significance for the country. Such areas may be specifically restricted as far as the flow of people and goods is concerned as well as when it comes to land ownership. For example, in Resolution No. 26 dated 9 January 2001, the President of the Russian Federation approved a list of 380 administrative units where foreign nationals may not own land (*Resolution...* 2011). Evidently, in this case the border effect is limited. However, it is an exception to the rule. Normally, border regions can use the experience, potential and resources available on both sides of the border.

Development of border regions under new geopolitical circumstances

Coastal border regions are understood as a relatively self-dependent part of a greater area characterised by a complete cycle of reproduction, special forms of manifestation of reproduction stages, characteristic social and economic

processes, as well as by a special manner of achieving national objectives, the performance of tasks at the sea-coast, on internal waters, on the territorial sea, in the exclusive economic zone and on the continental shelf of the Russian Federation. The literature on the subject offers various interpretations of the concept of “border region”. For instance, border regions are regions adjacent to the land border, border waters or territorial waters, across which runs the line marking the territory of a country; a border region also includes a fragment of the border zone.

A border region is a potential region with its own distinct geography, history, ecology, ethnic groups and economic opportunities which is developed as an area functioning under bilateral economic and social relations.

Border regions are defined in the context of various determinants that describe the nature of their development. They are “regions adjacent to the land border, border waters or territorial waters, across which runs the line marking the territory of a country; a border region includes also a fragment of a border zone” (WARDOMSKI et al. 2002). One of the most important determinants of borders is the identification of their type. Thus, scholars distinguish two types of borders – old and new. Old borders are associated with border regions that bordered nations before the breakup of the Soviet Union.

New borders were established after the breakup of the Soviet Union and they are borders that previously had functioned as internal administrative boundaries among the Republics of the Soviet Union. It should be especially noted that with the advent of new boundaries, Russia needed to make a tremendous organisational and legal effort to ensure infrastructure at those borders. Currently, Russia has a uniform system of state border infrastructure management. Such a system consists of border inspection, customs, immigration, sanitation, quarantine, veterinary, phytosanitation and quarantine of plants.

In addition, other authorities are also present at border crossings and ensure the safety and the efficient functioning of crossings. Table 1 is a general description of border regions with new borders.

Additionally, in certain publications there prevails a strictly academic approach to the notion of “border”. In accordance with the foregoing, the following types are identified: geometric, or more precisely, morphometric; physical and geographical; economic and geographical; anthropogenic; genetic; and evolutionary. In the contemporary typological classification of border regions, each of these types is used as a separate criterion or as related to border effects. Therefore, most methods provide for two approaches: the first approach involves the border effect and the second approach involves the peripheral nature of all the border regions.

The border effect is said to include features of an individual border, where a border is considered to be a barrier, a contact, and a diffusion entity. In this case, a functional feature is the openness or restrictiveness of a border and the effects include cooperation and integration or isolation and lack of contact.

Table 1

Characteristics of border regions with their old and new borders

Specification	Year of establishment	Area [km ²]	Population (thousand) (as at 1 January 2016)	Neighbouring country, aquatory
1	2	3	4	5
Border regions with old borders				
Republic of Karelia	08.06.1920	180.5	629.9	Finland
Arkhangelsk Oblast (without the autonomous district)	23.09.1937	413.1	1,130.2	Arctic Ocean
Kaliningrad Oblast	07.04.1946	15.1	976.4	Poland, Lithuania
Leningrad Oblast	01.08.1927	83.9	1,778.8	Finland, Estonia
Murmansk Oblast	28.05.1938	144.9	762.2	Norway, Finland
Yamalo-Nenets Autonomous Okrug	10.12.1930	769.3	534.1	Arctic Ocean
Altai Republic	01.06.1922	92.9	215.2	Kazakhstan, China, Mongolia
Republic of Buryatia	30.05.1923	351.3	982.3	Mongolia
Tyva Republic	11.10.1944	168.6	315.6	
Zabaykalsky Krai	01.03.2008	431.9	1,083.0	
Krasnoyarsk Krai	07.12.1934	2,366.8	2,866.5	Arctic Ocean
Sakha (Yakutia) Republic	27.04.1922	3,083.5	959.7	
Kamchatka Krai	20.10.1932	464.3	316.1	Japan (sea borders), Pacific Ocean
Primorsky Krai	20.10.1938	164.7	1,929.0	
Khabarovsk Krai	20.10.1938	787.6	1,334.5	
Magadan Oblast	03.12.1953	462.5	146.4	
Sakhalin Oblast	20.10.1932	87.1	487.3	
Amur Oblast	20.10.1930	361.9	805.7	China
Jewish Autonomous Oblast	07.05.1934	36.3	166.1	
Chukotka Autonomous Okrug	10.12.1930	721.5	50.2	USA (sea borders), Pacific Ocean, Arctic Ocean
Border regions with new borders				
Bryansk Oblast	05.07.1944	34.9	1,225.8	Belarus, Ukraine
Belgorod Oblast	06.01.1954	27.1	1,550.1	Ukraine
Voronezh Oblast	13.06.1934	52.2	2,333.5	
Kursk Oblast	13.06.1934	30.0	1,120.0	
Smolensk Oblast	27.09.1937	49.8	958.6	Belarus
Pskov Oblast	23.08.1944	55.4	646.4	Estonia, Latvia
Republic of Kalmykia	04.11.1920	74.7	278.8	Caspian Sea

cont. Table 1

1	2	3	4	5
Krasnodar Krai	30.09.1927	75.5	5,513.8	Ukraine, including Sea of Azov and Black Sea
Astrakhan Oblast	27.12.1943	49.0	1,018.6	Kazakhstan, Caspian Sea
Volgograd Oblast	05.12.1936	112.9	2,545.9	Kazakhstan
Rostov Oblast	13.09.1937	101.0	4,236.0	Ukraine, including Sea of Azov and Black Sea
Republic of Dagestan	20.01.1921	50.3	3,015.7	Georgia, Azerbaijan, Caspian Sea
Republic of Ingushetia	1924	3.6	472.8	Georgia
Kabardino-Balkaria Republic	1922	12.5	862.2	
Karachay-Cherkess Republic	12.01.1922	14.3	467.8	
Republic of North Ossetia-Alania	01.07.1924	8.0	703.7	
Chechen Republic	1922	15.6	1,394.2	
Orenburg Oblast	07.12.1934	123.7	1,994.7	Kazakhstan
Samara Oblast	14.05.1928	53.6	3,206.0	
Saratov Oblast	10.01.1934	101.2	2,487.5	
Kurgan Oblast	06.02.1943	71.5	861.9	
Tyumen Oblast (without the autonomous districts)	14.08.1944	160.1	1454.6	
Chelyabinsk Oblast	17.01.1934	88.5	3,500.7	
Altai Krai	28.09.1937	168.0	2,376.7	
Novosibirsk Oblast	28.09.1937	177.8	2,762.2	
Omsk Oblast	07.12.1934	141.1	1,978.5	

Remark: The Kaliningrad Oblast, Leningrad Oblast, and Altai Republic have both old and new borders.

Source: own research.

In the literature on the subject, peripherality entails the peripheral location of border regions and distancing from growth centres.

Thus, economically speaking, border regions are points of contact and thanks to the seaports of coastal regions they constitute centres for economic cooperation with foreign countries and peripheral parts of a given country (MIEŻEWICZ 2011). Based on that, two ways of typological classification of border regions in the literature on the subject can be identified.

The first method of typological classification involves the identification of the core typological feature that allows one to specify the nature of correlations between regions located on both sides of the border. According to the foregoing, there are four types of border regions (VAN DER VELDE et al. 1997):

- isolated border regions – lack of border contact caused by warfare, political disputes, strong nationalist trends, ideological or religious hostility, cultural differences or ethnic competition;
- co-existing border regions – there is some economic and cultural cooperation;
- interrelated border regions – economic, cultural and social cooperation is as developed as possible for existing borders;
- integrated border regions – integration to a maximum possible extent, free flow of people, commodities, funds and ideas. Border regions evolve from isolated regions to integrated regions, which is important for their socio-economic development.

The second approach involves the combined application of two criteria: type of state border and the characteristics of regions located at that border.

The following types of state borders are identified: isolating borders, translucent borders, connecting borders, and integrating borders. The core features of regions located at the state border include: political relations between states; the economic situation in border regions; the cultural situation in border regions; and the internal policy on border regions (KOLOSOV et al. 2005).

Characteristics and features of the development of coastal regions

When discussing border regions, one should particularly distinguish coastal regions due to their nature and aspects of development. Coastal regions are closely related to the national maritime policy implemented using coastal and marine resources of the state and society, constituting the marine potential of Russia. At the root of that potential there are: sea transport; Navy; fishing fleet; R&D and specialist infrastructure, including facilities and resources for searching for and prospecting fuel, energy, and mineral deposits; the shipbuilding industry; and infrastructure required for the operation and development of the above-mentioned facilities (Tab. 2).

Obviously, besides being involved in economic and social policies, coastal regions are often engaged in the creation and implementation of the national maritime policy through local governments, business environments, social organisations, and other associations as per the Constitution and legislation of the Russian Federation.

Pursuant to the laws and regulations of Russia, border authorities are responsible for coastal land and sea boundaries which are divided into the following types: internal water boundaries, territorial sea boundaries, exclusive economic zone boundaries, continental shelf boundaries and natural resource area boundaries. The aforementioned types of boundaries have their own characteristics and features; that is why they are described in detail below.

Table 2

Characteristics of coastal regions in the basins of the Russian Federation

Basin	Year of establishment	Area (thousands of km ²)	Population (thousands) (as of 1. January 2016)
Arctic Basin			
Murmansk Oblast	28.05.1938	144.9	762.2
Republic of Karelia	08.06.1920	180.5	629.9
Nenets Autonomous Okrug	15.06.1929	176.8	43.9
Yamalo-Nenets Autonomous Okrug	10.12.1930	769.3	534.1
Krasnodar Krai	07.12.1934	2,366.8	2,866.5
Sakha (Yakutia) Republic	27.04.1922	3,083.5	959.7
Baltic Basin			
Kaliningrad Oblast	07.04.1946	15.1	976.4
Leningrad Oblast	01.08.1927	83.9	1,778.8
City of Saint Petersburg	1703	1.4	5,225.7
Far Eastern Basin			
Chukotka Autonomous Okrug	10.12.1930	721.5	50.2
Kamchatka Krai	20.10.1932	464.3	316.1
Magadan Oblast	03.12.1953	462.5	146.4
Khabarovsk Krai	20.10.1938	787.6	1,334.5
Sakhalin Oblast	20.10.1932	87.1	487.3
Primorsky Krai	20.10.1938	164.7	1,929.0
Caspian Basin			
Republic of Dagestan	20.01.1921	50.3	3,015.7
Republic of Kalmykia	04.11.1920	74.7	278.8
Astrakhan Oblast	27.12.1943	49.0	1,018.6
Azov-Black Sea Basin			
Rostov Oblast	13.09.1937	101.0	4,236.0
Krasnodar Krai	30.09.1927	75.5	5,513.8

Source: own research.

The internal water boundaries and the territorial sea boundaries have been identified in the Federal Law of 31 July 1998 No. 155 – FZ “On internal waters, territorial sea, and contiguous zone of the Russian Federation”. Internal waters are on the side of the coast behind the line establishing the breadth of the territorial sea of the Russian Federation. They include aquatories whose boundaries are marked by the points of aquatic engineering and related structures located farthest seaward as well as lagoons, bays and ports whose shores belong solely

to the Russian Federation, up to the straight line running from shore to shore in the place of the maximum low tide, where from the sea side for the first time one or a few passages appear if the width of each of them does not exceed 24 nautical miles. In this case, the territorial sea of the Russian Federation adjacent to the land or the internal waters is a 12 nautical mile wide strip of sea measured from the baseline.

There are five types of baselines from which the breadth of the territorial sea is measured.

The first type is a line of the maximum low tide along the shore marked on the official, published nautical maps.

The second type is a straight baseline connecting the points of islands, reefs, and rocks located farthest seaward in places where the shoreline is especially wavy or where along and in close proximity to the shore there is a chain of islands.

The third type is a straight line drawn across a river estuary, between the points on the river banks farthest seaward at the maximum low tide.

The fourth type is a straight line not exceeding 24 nautical miles, connecting the points of the maximum low tide, the points of the outlet of a lagoon or a bay between islands or between an island and a continent, whose shores belong to the Russian Federation.

The fifth type is an arrangement of straight (more than 24 nautical miles long) baselines that connect the points of the outlet of a lagoon or a bay between islands or between an island and land historically belonging to the Russian Federation (Federal Law *On internal waters, territorial sea and contiguous zone of the Russian Federation*).

Of particular interest appears to be the typology of boundaries within the Russian exclusive economic zone. The exclusive economic zone is a sea area located outside the territorial sea and adjacent thereto, with a special legal status defined by the Russian Federation, pursuant to the international agreements signed by Russia, and in compliance with the norms of international law. The exclusive economic zone has inner and outer boundaries. The inner boundary is the territorial sea boundary and the outer boundary is a distance of 200 nautical miles from the baseline from which the breadth of the territorial sea is measured as long as the international agreements signed by Russia do not provide otherwise.

Exclusive economic zones are of great importance for the development of economic operators in coastal and other regions due to deposits of natural resources covering the bottom of the sea and lying underneath it. Aquatic biological resources, including fish, aquatic mammals, seaweed and other aquatic fauna and flora account for the potential resources of a coastal region. Of considerable significance are also inanimate resources of an exclusive economic zone. These are mineral resources at the bottom of the sea, including chemical elements and their compounds in the seawater; energy from tides, currents, and wind;

as well as other types of inanimate resources (Federal Law *On the exclusive economic zone of the Russian Federation*).

It should also be emphasised that coastal regions have the right to operate a business in an exclusive economic zone. This and related rights are defined in the federal case-law, for instance, in the Federal Laws *On deposits, On fisheries and conservation of aquatic biodiversity resources*, and others.

In addition, apart from the foregoing typologies of internal water boundaries, territorial sea boundaries and exclusive economic zone boundaries, of relevance is the typology of the Russian continental shelf boundaries. By definition, continental shelf boundaries include the sea bottom and underwater deposits beyond the boundaries of the territorial sea for the entire length of the natural continuation of its land up to the outer boundary of underwater edges of the continent. The underwater edge of the continent is a further portion of the continental massif covering the area and deposits of the continental shelf.

The inner boundary of the continental shelf is the outer boundary of the territorial sea, and the outer boundary is located at a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, provided that the outer boundary of the underwater edge of the continent is not situated at a distance exceeding 200 nautical miles. In particular, it needs to be noted that the identification of continental shelf boundaries is of strategic importance both for the entire state and unquestionably for coastal regions.

Presently, the continental shelf is rich in strategically important natural resources, including natural hydrocarbons, and perhaps that is why the identification of inner and outer boundaries is particularly important for every nation with access to the sea.

The typology of inner boundaries of sea waters, the territorial sea, exclusive economic zones, and the continental shelf is of the utmost importance for coastal regions from the perspective of a national economy. The next chapter contains a scientific analysis in order to classify the aspects of the socio-economic development of the coastal regions of Russia.

Conclusions

Typology has a special place in research projects. This is because the Russian Federation has numerous models of regional development where the characteristics of individual regions, as well as geopolitical circumstances, are taken into consideration. Russia is the only country in which there is such a great variety of geographic, economic, cultural and political determinants influencing territorial units, which means that often enough there are material differences observed between them, also resulting from the vast sizes and large distances between Russian territorial units. Thus, typological classification of regions is not only

of great relevance, but it also provides for the classification of regions into separate groups, taking into account the similarities of features and the socio-economic development (inhabitants' standard of living, resources and potential, investments and innovations). Generally, relations between groups of regions with similar features are defined based on a statistical analysis (cluster analysis).

The research results suggest that the level of socio-economic development of coastal regions and border regions is ascribed not only to internal characteristics and development aspects, but also to particular links to analogous determinants and the characteristics of neighbouring regions and nations. For example, stable cross-border relations foster a high level of development of border areas, whereas tensions and unstable relations lead to a low level of development.

In the Russian Federation, this is particularly manifested, e.g. in the development of regions bordering with Kazakhstan and Belarus characterised by active cross-border exchange and a strong border effect. On the other hand, long-term domestic and international instability in the Caucasus hinders development and results in leaving such border areas poorly developed.

Unfortunately, scholars have yet to agree on a uniform system of typological classification of regions. Simultaneously, there are noteworthy research results for individual regional development trends which have already been sufficiently classified. Therefore, with regard to the foregoing, it is imperative to carry out further detailed, even interdisciplinary research on this subject.

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