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# THE "NEW BORDERS" AS A FACTOR OF SOCIO-ECONOMIC AND ENVIRONMENTAL DEVELOPMENT OF THE RURAL AREAS

Changing of geopolitical situation in Europe in the end of the 20th century influenced, in the first turn, foundation of the new states with all the attributes of spatial delimitation. For example, the length of the state border of the USSR in the limits of the Belarusian part was 399 km and the administrative boundaries of the BSSR (Belarusian Soviet Socialistic Republic) with other subjects of the Union brought a purely positional character and were the limits of the administrativemanaging actions only of the regional authorities. The break-up of the Soviet Union led to increasing of the length of the state borders of Belarus more than in 7 times (from 399 km to 2969 km) at the cost of giving a status of the state boundary to the former Union's administrative borders of the republic. Simultaneously, immediate delimitation and demarcation of the line of the state border with creation of the whole complex of adjacent to the boundary infrastructure (the customs', military etc.) was required because of a range of political agreements and authorities' actions of the bordered states at least on extent of 605 km (part of the boundary with Lithuania and Latvia). In other words, formation of the new borders has become a factor of increasing of transformation of the spatial structure [1] in freshly appeared adjacent to the boundary's territories of Belarus. It was reflected not only in the growth of the objects of the territorial lay-out of close-to-the border's administrative districts but and in forming of specific, frequently troublesome, local socio-territorial systems. A uniqueness of geopolitical location, which determined the whole set of the consequences in development of the socioeconomic area of habitation of the border districts, has become an unconditional factor of forming of such sort of spatial systems.

The goal of given research is to discover the reasons and directions of the transformative processes in the territorial structure of the rural areas in the border districts. The object of the study is a spatial area adjacent to the state boundary of the Republic of Belarus with the Republic of Lithuania with a total length 180 km

in the scopes of the Iv'e and Voronovo districts of the Grodno region. The boundary of given area crosses a rough terrain with fluctuations of the relative altitudes up to 20 meters with abundance of the small areas of forest. Small and the smallest rural settlements with narrowed demographical potential with the population up to 25-50 inhabitants prevail in the borders of the pointed administrative districts. Territorial concentration of the customs' and military infrastructure can be observed in big and the biggest rural settlements with population more than 200 inhabitants, which are located in direct vicinity to the line of the state boundary (Benyakoni, Dotishki, Geraneni villages). As a rale, the rural settlements of this group in the research area have more scaled communication accessibility than other rural settlements and initially they possess an increased demographical potential for development of the border infrastructure. Concentration of the customs' and military objects is also characteristic for the urban settlements located in the limits of the 40-km in length zone of accessibility from the boundary (Lida, Berezovka, Iv'e, Voronovo). The main factors of saturation of the urban environment with the objects of adjacent to the border infrastructure are the following:

- 1.. concentration of industry with clear exporting direction (Lida, Berezovka);
- 2. existence of the relevant social infrastructure (Lida, Iv'e, Voronovo);
- 3. high level of the transport accessibility (Lida).

Organization of the customs' infrastructure of given part of the state boundary was begun in the end of 1991. The offices of the customs' registration Geraneni, Dotishki (which have a status of the automobile border interstate offices), Benyakoni-1 (automobile border international), Benyakoni-2 (border railways' office of a international status) were formed in the rural areas in the structure of created branch of the State Customs' Committee on September, 1. The Voronovo customs' post was transformed into the Voronovo customs' control office and subordinated to the Oshmyani customs. The zone of the office's activity is the Voronovo, Iv'e, Lida districts and Lida with the length of the state boundary approximately 180 km.

Creation of the military infrastructure began with a certain delay in comparison with the customs' one. It was connected with the fact that given part of the state border after the break-up of the Soviet Union was referred to the category of unequipped boundaries. It was necessary to create the infrastructure of the army's vital activity in conditions of limited financing. Delimitation and equipping of the border line was completed in 2001-2002. Creation of the customs' and military

infrastructure caused an increasing of the process of concentration of the social infrastructure in direct vicinity to the border offices of the customs' registration (building of the storehouses, foundation of the bank's branches, fast food cafes, campings, duty-free shops, stations of the transport technical services).

Spreading of the objects' diversity of the territorial organization of the rural areas adjacent to the Belarusian-Lithuanian border brought about an expansion of the functional load of the rural territories. Communication function was strengthened by implementation of the external economic contacts and close-to-border goods' exchange. The role of the demographical and socio-economic functions also increased. The working places being created initially had more profitable positions, first of all because of the greater volume of incomes (official as well as unofficial ones) and the better kind of job, rather than the traditional vacancies for the rural areas (agriculture and timber-processing). It became a main reason of the mass concentration of economically active population exactly in these types of occupation.

For instance, the working staff of the Voronovo customs office on August, 1, 2002 included 179 employees. Among them 35% belonged to the rural inhabitants. In accordance with the level of education employees with a higher education prevailed (141 people or 78,8% of the workers). The structure of the staff according to diploma qualification is of special interest. 33 people (18% of the employees) had the education in law, 26 people (14%) - an economic education, 39 people (21,3%) received their diplomas in engineering, 18 people (10%) - in the field of pedagogy, 63 people (36,7%) had the diplomas of other specialties. In accordance with the assessments we made, approximately 40% of the workers had a diploma with specialization in agriculture. The majority of them (about 90%) graduated from the higher educational institutions. From the point of view of the employees' age people from 30 to 50 years old prevail (73%), only 4 workers are the pensioners. The most part of the staff had more than 5 years of professional experience in the field of the customs' activity. We cannot also fail to mention the fact that there were no employees with a professional experience over 15 years, which certifies about usage of the potential of the local labor market when the customs' infrastructure was being created. Increasing of the family's profits of the customs' workers led to appearing the social dichotomy "a customs' worker - not a customs' worker". Undoubtedly, the state statistics and control could not fix the process of growth of the illegal incomes in such families on account of badly worked not only the principles of account and finding the factors of the laws' breaks, but and due to rapidly changing demand and supply on the markets of Belarus, Lithuania and neighbor's states as well as because of imperfection of the regime of crossing of the state boundary (an absence of well-qualified control on the border). This process found a reflection in the mental perception of the reality by the members of adjacent to border's societies, including the rural ones. In accordance with a reaction of society, appearing of the cottage building-up at the

outskirts of Voronovo, Benyakoni, Geraneni as well as buying the cars for 2-3 months after acceptance for a job or occupation in "a profitable business at the border" was connected with a work in the customs or involvement into the "boundary". How it corresponded or not corresponded to the reality, we can judge only due to the secondary signs of development of the operative situation along the border. The operation "Rubezh-97" was conducted by the State committee of the border troops at the boundaries of the Republic of Belarus in 1997. According to its results, a rate of the Lithuanian border in detention of the violators of the boundary was 74%, in detention of the illegal migrants-citizens of Afro-Asian region - 65%, in detention of the material values - 35%. During conduction the border's actions in the scopes of the operation "Rubezh-97" the illegal displacement of the material values in the total sum 10 milliards Belarusian roubles (35% from the total quantity of arrested contraband in 1997), currency - about 20 thousand of USD (50% from the total quantity of arrested in 1997), 500 violators of the state boundary (20% from the total quantity of arrested in 1997) was prevented in the Republic of Belarus. Among arrested violators of the border about 150 people (27% from the total quantity of arrested in the previous year) are the citizens of the states of the Near East, Asia, Africa who tried illegally to penetrate into the territory of the countries Belarus borders with. Analysis of duration of conducting of the border's actions in the scopes of above operation and correspondence of its results can certify the effectiveness of work of the customs' bodies and, in particular, at the Lithuanian boundary. In accordance with the operative reports of the Voronovo customs office for 1998-2001 the main kinds of the customs offences are the following: displacement of the goods through the customs' border outside of the place of location of the customs' registration office; not providing the customs' declaration and other documents required for the customs' registration with correct information about the goods being displaced, using of falsified or received illegally documents as a basis for displacement of the pointed goods at the customs office. Registration of offences in work of the customs' employees in dealing with the customs' documentation for crossing the border also took place during the pointed period. Above comments may serve only as an indirect proof of involvement of the certain workers of the customs' infrastructure in illegal streams of the material values. Nevertheless, the fact of a visual perception of the social welfare in the families whose members are occupied in adjacent-to-the-border's infrastructure, their way of life on the background of a low level of the life's quality of majority of population is causing a mental conflict of perception for many representatives of the border's society. The situation concerning "the boundary's businessmen" - a layer of population who get their profit at the cost of fluctuation of demand and supply on the economic markets of Belarus and neighboring states also enables increasing social tension in the area under research. As a rule, their activity is not registered by the tax and finance inspections and their profits undergo the influence of incidents but, nevertheless, in reality these are relatively high amounts. Before

2002 the main group of "the boundary's businessmen" specialized on the operations of buying, driving through the border, reselling used cars. Modern situation in the automobile market of the countries of CIS does not enable getting high profits on account of the new high rates of the customs' fees and increases financial risk. It determines "a free sailing" of above group of the border's society today. Unfortunately, they do not invest accumulated money into development of the local economy and are directed to look for a source of profits outside the places of settling. The very this factor brings dissonance into the mental perception of their way of life by other members of the border's society. The second group of "the boundary's businessmen" deals with a local contraband. Strengthening the border's control in 1998 led to closing bypassing ground roads for crossing the state boundary that, on one hand, enabled reduction of the transport stream missing the offices of the customs' registration and, on another hand, that transformed a significance of the field's and forest's roads running to the border. They acquired a strategic value for inhabitants, first of all, from the small and the smallest rural settlements adjacent to the boundary, who started dealing with transporting contraband by horses and carts. Analysis of the reports about the operative situation in the zone of the Voronovo customs since 1998 to 2001 shown the main problem, which enables commitment of the customs' offences - existing of 20-50 forest's and field's roads depending upon the weather conditions used for contraband. Unloading of the trucks and storing contraband took place on the farm homesteads into the storehouses of "the carting people". Afterwards this contraband had been delivered for several days into analogical storehouse on the Lithuanian side. Displacement of the goods was frequently accompanied by a preliminary scouting the road by pedestrians with usage of radio communication facilities. For example, the officers of the Voronovo customs discovered 42 facts of illegal displacement through the border by the pointed way in 1999. The third group of "the boundary businessmen" also exists - small smugglers.. According to the social structure they represent various groups of population - pensioners (they dominate), unemployed people, small business. In accordance with our estimations, the rate of this group of society is approximately 40% of the population of the Voronovo and Iv'e districts. They specialize mainly on transportation of goods of daily demand, often produced on the own subsidiary farms, and earn money on the difference of prices in the markets of Belarus and Lithuania adjacent to the border. In mental perception of the members of society they are the group of "the most honest hardworking people who are forced by the life itself. Anyway, a clear contrast in the life conditions typical for them and the life conditions of majority of the society's members is not seen.

The criminal situation on the territory of the area under research according to dynamics of the quantitative factors has no difference from appropriate factors of the criminal involvement of the inner districts. A general tendency for twice increasing of the number of registered crimes in the period from 1991 to 2000 is

characteristic. Simultaneously, the rate of crime committed in the rural areas is higher than 60% in the Voronovo and Iv'e districts; in the Lida district this rate is only 15-20%. Undoubtedly, the leading factor of differentiation of the criminal involvement is a criterion of concentration of population, nevertheless "the breathing" of the border is also a factor of deterioration of the criminal situation in the rural areas of the districts adjacent to the boundary. Specific rate of the young people (14-29 years old) among those people who committed the crimes in the rural areas is over 50% in the Voronovo district, about 50% - in the Iv'e district. At the same time, this rate is approximately 35% in the Novogrudok district, 42% - in the Slonim district, 37% - in the Korelichi district.

Thus, the state border has become a resource, a character of usage and a level of accessibility of which determined a social structure of the settling groups of the bordered regions. Appearances of a mental conflict in perception of a social stratification by the members of socium in the interior of the regions did not find clear signs of an active sabotage today; however, they are still a factor of forming of emotional-psychological sides in the socio-economic area of habilitation of the regions at the borders. The regional image being under forming enables a smoothing of the conflicts in the regional mental image. "There are some places where the situation is worse than here" - this is an imperative of perception of reality typical for majority of the rural inhabitants of the areas adjacent to the boundaries. More comprehensive information about the work of the bodies of the state governing and control in the problems of the borders could enable, to our mind, a weakening of an emotional nervousness of different social groups. The politics directed to regulate a level of the employee's salaries can definitely depend upon a level of the social welfare and conflicts in the area under study. According to statistical information, the level of the months' salary in the Voronovo and Iv'e districts is still the lowest in Grodno region [2]. Nevertheless, despite the facts of criminalization and instability of stratification of the territorial-social systems, the state border is a factor of increasing of the general social prosperity of the inhabitants in the regions close to the border.

Strengthening of the social-economic function of the rural areas adjacent to the border is partly determined by a strengthening of the role of the communication function at the cost of the total intensification of the transport stream through the boundary. Intensity of the transport stream through investigated part of the border depends upon internal and external factors. To the category of the internal factors can be referred the following: an export-import character of the industrial and agricultural potential of the active zone of the border infrastructure in the part of the boundary under research, a level of development and quality of the transport infrastructure of the border zone. External factors are as follows: a dynamics of the economic conjuncture in the world's and neighbor's regional and state markets, a degree of a "transparency" of the border in accordance with existing international

and interstate agreements as well as with those agreements which are concluded in Belarus.

The biggest industrial plants and enterprises functioning in the area of activity of the Voronovo customs' office are: OAO "Lida-Lakokraska", OAO "Lidahleboproducty", RUP "Lida-Agroprommash", SAO "Lidskoe pivo", RUP "Steklozavod Neman". The largest external economic potential have OAO "Lida-Lakokraska", RUP "Steklozavod Neman" and the Lida forestry.

The volumes of the total transport stream and transported through the boundary loads have increased 2-3 times for the last five years in the region under research. For instance, the physical volume of the loads has increased from 1.2 million tons to 2.5 million tons since 1999 to 2002 in total. The main part of the loads is transported by a railway (in 2002 the volume of such transportation was 87,4% of the total volume of the loads transported through the border) via "Pinsk -Baranovichi - Lida - Vilnius" section. In the scopes of the project of reconstruction of the railway tracks in USSR in the mid 90s building of the second line of above railway was planned, but the programme was not carried out on account of economic and political crisis. Intensity of traffic through the section "Lida - Vilnius" had been reduced in 1993 more than 5 times from 30-40 locomotives per day to 3-6 in comparison with the end of the 80s. Projecting and further using of the second track has become inadvisable. Nowadays intensity of traffic is about 10-15 locomotives per day that corresponds to the standards of traffic through a single-track railway. On the section "Lida - boundary" the network railway station Lida, the local tracking railway stations Hudy, Benyakoni and Bastuny in the scopes of the rural settlements are functioning. These stations, apart from Lida, do not possess a considerable potential of the storehouses and execute the functions of the stations where the trains stay or receive the local goods. Projecting and building of the cargo terminals could significantly enable a spreading of functionality of the rural territories and, appropriately, an increasing of the socio-economic status of the rural inhabitants.

Transporting of the loads by an automobile transport concentrates along the highway Lida - Vilnius. The automobile customs' control office Benyakoni passes approximately 97% of the loads. The role of the highways Lida - Geraneni and Lida - Radun - Dotishki in the border's cargo traffic is not significant because of insufficient development of the highway's infrastructure and quality of the road's surface. The automobile customs' control offices Dotishki and Geraneni are used for crossing the boundary by the inhabitants of the areas adjacent to the state border. Above factor has determined an increased load on the social infrastructure of the rural settlements located along the highway Lida - Vilnius. The problem of improvement of the highway's infrastructure in the borders of the final settlements close to the boundary (Benyakoni, Dotishki, Geraneni villages) has become an extremely actual. Initially, they possess a higher level of development of the services and are the areas of the rural growth. Increasing of concentration of the

service's objects in their territories led to appearing of a "careen" in development of the basic framework of the rural settling, to deepening of the processes of degradation of the rural periphery. Development of the social infrastructure must be regulated, in our opinion, in the limits of the line of the boundary's highways without its concentration in the settlements, taking into account the principles of territorial justice. In this case the rural settlements not located in direct vicinity to the state border will obtain more convenient and profitable geographical location. Such principle of the territorial lay-out could provide more stable development of the small and the smallest rural settlements in the region under research.

Worsening of ecological situation in the Republic of Belarus made actual a question about necessity of conduction a complex monitoring of the environment in all regions of the country. Monitoring conducted in the areas adjacent to the boundaries has a special significance. It makes possible a fast diagnosis of those changes in the environment, which can be caused by the external sources situated outside the territory of Belarus.

Republic's geographical location in the region of influence of the air masses, which have a prevailed western direction, makes a considerable impact on the environmental conditions of the territories close to the border. Cross-border transition of the air masses influences hugely the environment of the districts under research, which are the areas of maximum income in Belarus oxygenized nitrogen (500-600 kg/km² per year), recalled nitrogen (800-1000 kg/km² per year) and, in less degree, oxygenized sulphur (approximately 1500 kg/km² per year) [3]. Particularity of this kind of contamination is in the fact that the sources of producing of all above-mentioned pollutants are the enterprises of Great Britain, France, Germany and Poland. In addition, a range of big industrial objects, which also influence negatively the ecological situation in the border's districts - Lida TEC (heating electric power producing center), OAO "Lida-Lakokraska", RUP "Steklozavod Neman" is located in the areas under study.

During the period since 1997 to 1999 a growth of the level of diseases concerned with the organs of breathing was observed in these districts (Lida district - 40000-50000 per 100000 inhabitants, Voronovo and Iv'e districts - 15000-25000 per 100000 inhabitants), respiratory tract infection (ORZ) and influenza (Lida district - 28000-49000 per 100000 inhabitants, Voronovo district - 20000-28000, Iv'e district - 5000-14000 per 100000 inhabitants).

Ecological situation of given territories is generally characterized in a wide range of the states - from unsatisfactory (certain parts of Iv'e and Lida districts), up to relatively satisfactory (southern part of Lida district) and satisfactory (Voronovo, Iv'e districts, north of Lida district).

There are some types of monitoring of the environment in the areas under study:

1. Monitoring of the underground waters is conducted in Lida, where the observation post for the natural regime of the underground waters is located.

- 2. Monitoring of air is also implemented in Lida (meteorological station, kinds of observations meteorological and agrometeorological. The project for setting up 2 additional posts of air monitoring in Lida is worked out. Hydrometeorological posts of monitoring are also located in the villages Lubenyaty (Iv'e district), Parachany and Belitsa (Lida district).
- 3. Posts of monitoring of vegetation of the forests are located in every district under research (mostly in Lida and Iv'e districts).
- 4. Monitoring of the level of radiation is conducted in Lida. Remoteness of given territories from the biggest nuclear power station (NPS) is as follows from the Ignalina NPS (Lithuania) 200 km (Voronovo, Iv'e districts) 230 km (Lida district); from the Roven NPS (Ukraine) 280-300 km.
- 5. Hydrochemical network of monitoring of the surface waters is represented by the post in the village Bolshie Yatsiny (Lida district).
- 6. Stations of monitoring of the chemical content of precipitations are not represented (the nearest is located in Naroch settlement, Minsk region) [4].

Thus, ecological infrastructure in the area under study requires a considerable improvement on account of importance of its border location as a control post for alterations of the environment in the Republic of Belarus.

Conducted analysis of the influence of the factor of a border on forming of the socio-economic area of habilitation of population allowed us to work out a zoning of the rural territories adjacent to the boundary (picture 1). The following types of the rural territories have been distinguished: the areas of the rural growth, the areas with a considerable communication potential, the rural "ghetto", and the suburban areas.

The areas of the rural growth are the most rapidly developing rural areas with the centers - settlements with a number of inhabitants more than 300 people, which concentrate infrastructural and industrial objects. As a rule, apart from the reproductive functions they are characterized by a managing function (they are the centers of the administrative-territorial units of the lowest rank and agricultural companies). In accordance with a dynamics of the processes of transformation of the territorial structure two classes of the areas of the rural growth can be distinguished in the area under study: adjacent to the border with a high level of the industrial-infrastructural development; the inner stagnant with a sufficient level of the industrial-infrastructural development.

The areas with a considerable communication potential are located along the highways "Lida - Benyakoni", "Grodno - Bastuny - Trokeli - Geraneni", "Lida - Radun - Dotishki", "Lida - Geraneni" and the railway track "Lida - Benyakoni". The small and the smallest rural settlements with a population 25-200 people removed from the communication frameworks on the distance up to 5 km from a supporting settling carcass in above type of the rural areas of the region under research. They do not possess a well-developed infrastructural combination and

play a role of the centers of separate branches of the agricultural companies in the industrial structure. Unfortunately, a level of development of the communication infrastructure in these areas is also low, although, potentially, it can be sufficiently high.

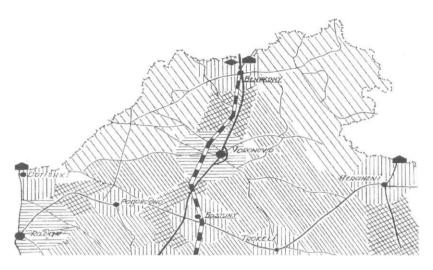
Forming of the rural "ghetto" or the zones of the rural segregation is typical for the spaces removed from the communication ways, the areas of the rural growth and the urban settlements in a maximum degree. The smallest rural settlements with population up to 25 inhabitants (farms) dominate in the settling structure of this type of the rural territories. The character of the processes of transformation of comfort of the socio-economic area of habilitation in the rural "ghetto" is a factor of their differentiation into two classes: close-to-the-border criminal with relatively significant demographical potential and inner ones with a high level of demographical degradation. The level of the social negligence of above type of the rural territories depends upon a rate of involvement of the rural inhabitants into the illegal border's streams (in the first case) and (in the second case) not only upon communication mobility but also and upon physiological mobility of population.

Suburban type of the rural territories is formed around the towns Lida, Iv'e, Berezovka and urban settlements Voronovo, Radun. All the classes of the rural settlements according to the number of inhabitants are represented in the settling carcass of this type. Development of infrastructural objects in above area is concentrated in the towns' centers.

Thus, a border is a factor of the social and spatial stratification of the rural territories in the districts adjacent to the boundaries. Playing a role of the resource of spreading of the functional load in the rural settlements, it enables strengthening of economic stability in development of the areas close to the borders with simultaneous increasing of the social tension in the rural societies.

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Picture 1. Typological areas of the rural territories in the region under research

# LEGEND FOR PICTURE

		State border of the Republic of Belarus	Typological areas of the rural territories	
		Settlements:	the fural territories	
тм	Voronovo	Smallest urban settlements	Areas of the rural growth	
•	Pogorodno	Rural settlements	Areas with a considerable communication potential	
		Communications	Rural depressing areas	
	Railways	Railways		
B ast	<u>tu</u> nV	Railway stations		
		Automobile highways of international level	Areas of high rate of the border crime and relatively considerable demographic potential Areas with a high level of demographic	
		Automobile highways of republican level		
		Automobile roads of local level		
		Customs' infrastructure	degradation	
		Automobile customs' control offices	Suburban areas	
		Railway customs' control offices		