

# Effect of Transport and Communication Connections on the Peripherality of the Border Areas of the Lubelskie Voivodship

**Mirosław W. Meksuła**

Siedlce University of Natural Sciences and Humanities, Poland

**Leszek Grzechnik**

Maria Curie-Skłodowska University in Lublin, Poland

---

## Abstract

*The article discusses the impact of the national border of the transport and communication accessibility of the Lubelskie Voivodship, and therefore its peripherality. The paper is based on the analysis of changes in the transport and communication infrastructure over the last century. After 1945 a unified transport system was replaced with two, almost entirely separated from each other. The political changes after 1989 had no effect on the functioning of the transport or communication system. The newly established countries, namely Belarus and the Ukraine, began functioning within the borders of the former Soviet republics, inheriting all of the features of the communication systems of the Soviet Union. Poland's accession to the European Union and joining the Schengen Area, were significant moments for the peripherality of the discussed area. The Lubelskie Voivodship became a peripheral zone not only of Poland, but also of the European Union.*

**Keywords:** peripherality, border, region, communication

## Introduction

The state of the modern world economy reflects an evidently uneven degree of development of particular parts of the world. The phenomenon is easy to observe on both the global and regional scales. It is manifested in the spatial variability of the level of socio-economic development. Better developed central areas occupy a considerably smaller area than the less developed peripheral regions. The availability of rich literature on the causes and effects of the spatial differentiation of development is symptomatic of the scale and significance of the resulting issues.

Transport accessibility is considered one of the most important factors determining the diversity of the level of development (Miszczyk 2013). Transport accessibility of a region is also related to important issues regarding the development of transport infrastructure, the provision of means of transport, the role and location of a given region in the transport network, and the costs of access. Transport-related factors are largely dependent on environmental conditions with an uneven spatial distribution, such as geology, land relief, surface- and groundwaters, climate, flora, or fauna.

A number of researchers emphasise the decreasing impact of transport-related factors on the uneven development of particular regions in the era of fast technological progress in the scope of transport and mass use of various media (Wróblewski 2012). The opinion, however, seems to be quite controversial. Owing to technological progress, human activities are largely independent from the environmental restrictions. The vast majority of transport system investments, however, have to be justified in economic terms. Environmental factors significantly affecting the economic efficiency of investments may and actually do play a considerable role in the development of transport

network conditions. This is evidenced not only in the case of the most popular means of transport such as rail, cars, or water transport, but also in reference to modern ones, such as aviation.

Although very significant, environmental conditions are only a part of the factors affecting the variability of transport and communication network conditions. Socio-economic and political factors are also of importance. They also show strong spatial variability. Political conditions show the lowest level of dependence on the natural environment, although even in this case they cannot be entirely disregarded. This is exemplified by national borders. Although they are frequently based on natural elements such as rivers, mountain ranges, etc., they are not strictly bound to them. In spite of their independence of the natural spatial conditions, the borders constitute a serious spatial barrier, strongly affecting transport and communication conditions.

## 1 Changes of communication conditions in the national border region of Lubelskie Voivodship

The border areas of the Lubelskie Voivodship are an excellent example of the effect of national borders on the transport and communication conditions of regional development. This particularly results from the local political changes occurring throughout the last century. Except for the relatively short periods of the World Wars, the entire study period can be divided into two shorter ones. The first one covers the inter-war years, from the end of the 1st to the outbreak of the 2nd World War, when the analysed region and the adjacent eastern areas were located within the territory of Poland. The second period covers the years from the end of the World War II to the present moment, when the area was divided, initially between two, and then between three countries. An insight into the development of the same region both in the conditions of existence of a barrier in the form of a national border, and in those of lack of such a barrier should facilitate the understanding of the mechanisms of the impact of a national border on transport and communication connections, and therefore the region's peripherality.

In the inter-war period, the discussed area belonged to the following voivodships: Lubelskie, Poleskie, Wołyńskie, and Lwowskie, located in the centre of Poland. Due to this, the region played an important role in the connectivity of the country. In spite of quite unfavourable environmental conditions, such as the Bug River constituting a serious transport barrier, and extensive wetland areas making the development of transport infrastructure difficult, a good (as for those times) and uniform transport network was developed. An important role in the network was played by road and railway bridges on the Bug River, as well as ferry crossings permitting transport of vehicles and supporting pedestrian traffic. The network of transport connections described above was successively developed and modernised throughout the inter-war period. This continued into the World War II. Good maintenance of road and railway connections was necessary for the support of military activities conducted by the German occupant authorities on the so-called "eastern front".

A considerable change in the functioning of the transport network in the discussed area occurred after 1945. Although the road and railway infrastructure were not destroyed as a result of wars, and survived in a relatively good condition, the functionality of the road and railway connections significantly decreased (see roadmaps of Poland 1939 and 1947). The primary cause of such a situation was the establishment of the national border separating the eastern areas of the 2nd Republic of Poland lost to the Soviet Union from the territory of Poland within its post-war borders. As a result, almost all of the road connections were broken, and ferry crossings were eliminated. Numerous railway connections were fragmented. Some of them were now located entirely outside the territory of Poland. The railway network, uniform until the end of the World War II, was also diversified in terms of technical parameters. This resulted in the development of two separate incompatible systems. Infrastructure with unchanged parameters was retained on the Polish side (standard gauge of 1435 mm). On the eastern side of the border, a broad-gauge system was introduced (1520 mm).

The establishment of the national border had a somewhat lesser impact for water transport and electricity and telephone networks. This particularly resulted from the low importance of inland waterways for the local transport. The construction of a canal connecting the Black Sea with the

Baltic Sea was planned. It was expected to be of more significance for water transport than the nearby Ogiński and Królewski canals. Unfortunately, the project was rejected in the early 1930s after the construction of a short section connecting the Bug River with the nearby Ryteć Lake (a distance of approximately 5 km).

The effect of the change of the Polish borders after the 2nd World War on the telephone and telegraph network was also insignificant. This particularly resulted from a very low level of their development. The invention of the telephone was not a novelty any more, but the number of telephone subscribers was still low. It increased from approximately 99 thousand in 1923 to 225 thousand in 1938. Moreover, a vast majority of subscribers was concentrated in cities, and long-distance calls constituted only approximately 5–6% of all calls. The mean density of the telephone network in the inter-war Poland amounted to approximately 4,4 km/km<sup>2</sup>. Only 38,8% accounted for long-distance calls. Therefore, the density of the network that could be affected by the establishment of the national border amounted to only 1,68 km/km<sup>2</sup> (*Mały rocznik...* 1939).

The electricity network was subject to similar relations. Although the Polish power industry of the inter-war period developed very dynamically, including the construction of a number of power plants and transmission lines, the general level of electrification was very low. Cities were largely provided with electricity supply, but this only concerned 3% of villages (*Mały rocznik...* 1939). Moreover, the contemporary electricity networks usually had a low (local) range, and were rarely interconnected. The establishment of the national border in 1945 did not result in significant changes in the electricity network of the discussed area.

The national border separating the territory of Poland and the Soviet Union, established in 1945, ran along the eastern boundary of the former Lubelskie Voivodship. The border between Ukraine and Belarus was marked by the boundary between the Poleskie and Wołyńskie voivodships. The former Lwowski Voivodship was an exception. The border divided its territory into two parts. The historical analysis of the border line between the Polish People's Republic and Soviet Union reveals that in its prevailing section, in the northern and central part of the discussed area, it ran exactly along the former boundary of the area of Russian occupation of 1795. In the southern part, the territory of the Soviet Union was enlarged by a significant part of the area of Austrian occupation. In the past, the discussed border was frequently referred to as "the friendship border." The name had little to do with the reality. The term "friendship border" was also inadequate to the appearance of the border itself. The double high barbed wire fence (frequently under high voltage) was separated with a wide belt of ploughed ground. The dense system of observation towers and high number of patrol officers protecting the border could be associated with a prison or concentration camp rather than with friendship between nations. The discussed area was divided into two almost entirely isolated territories for more than 40 years.

Changes occurring after 1989 were of twofold character. On the one hand, they increased the fragmentation through the division of the eastern part of the discussed area between two newly established countries, namely Belarus and Ukraine. On the other hand, they contributed to increased integration through the liberalisation of customs and passport provisions, and facilitation of cross-border traffic. Several border crossings were established in the period. The existing ones were substantially modernised. In spite of facilitating border traffic, freedom of movement of persons and goods were still far from the level from before 1939. The existing road and railway network in the discussed area changed insignificantly in comparison to the state from the inter-war period. The stagnation of the development of the transport network was the most determined by the appearance of two peripheral areas in place of the central region of pre-war Poland: Polish to the west, and Russian to the east, located on the boundaries of two separate transport systems. The character of a number of road and railway sections changed from pass-through to final. On the pass-through routes which survived the political changes (international routes), traffic was largely reduced, and became less smooth.

The functioning in the discussed area of two at first, and three states after 1989 also negatively affected the telephone network. In spite of the dynamic development of fixed telephone communications and the introduction of mobile telephony, the barrier in the form of the replacement of inland calls (inter-war period) with much more expensive international calls (post-war period) makes

the exchange of information much more difficult. The language differences contribute to the situation. Although the number of languages spoken by the inhabitants of the discussed area slightly decreased (effect of the holocaust), one official language, namely Polish, in the inter-war period was replaced with first two (Polish and Russian), and then four official languages (Polish, Russian, Belarusian, and Ukrainian). In the post-war period, also two different alphabets began to be used, namely Latin and Cyrillic. Paradoxically, the appearance of mobile telephony also caused disturbances in inland calls. In territories on both sides of the border, phone users frequently attempt to call subscribers from the same country through transmission stations located on the other side of the border. This results in a substantial increase in the costs of such calls.

The electricity network in the area has also been subject to substantial changes since 1945. All villages were electrified, and separate networks with a local range were combined into national structures. Unfortunately, the structures do not constitute one, but three separate systems.

An important moment in the development of the peripherality of the discussed area was Poland's accession to the European Union on 1 May 2004. The event particularly resulted in a change of the distance of the border areas of the Lubelskie Voivodship from the centre. A relatively small distance from the centre before 2004 increased almost ten times, and the discussed area has become a peripheral zone of not only Poland, but also the European Union. The accession of Poland to the Schengen Area in December 2007 eliminated personal control on the internal borders of the associated countries, but also forced the strengthening of control on borders with countries outside the group. As a result, the process of liberalisation of border traffic, initiated after the establishment of independent Ukraine and Belarus in 1991, slowed down. No substantial changes in the current border traffic are also expected in the near future. Considering the differences in the level of economic development, the rate of democratisation, and quite unstable political situation of the areas located east of the Bug River, the border (peripheral) character of the discussed area may be retained for a long time. In the long run, the integration between Ukraine and Belarus and the European Union will hopefully be strengthened, and the countries might join the Schengen Agreement in the future. Such activities would undoubtedly lead to a decrease in the level of peripherality of the discussed area, and its more dynamic development. At present, however, this is a possibility too distant to be considered.

## Summary

The strengthened border character of the discussed area contributes to its peripherality. This phenomenon is strongly negatively evaluated by the majority of experts. One of the attempts to counteract unfavourable economic and social phenomena in the area involved the establishment of Euroregion Bug. Although this contributed to the development of cross-border cooperation, it did not eliminate a number of negative effects of the existence of the national border in the discussed area.

The actual decrease in the rate of the socio-economic development of areas located along the border (Miszczyk 2008), however, does not have to be perceived negatively. A low rate of development usually translates to a lower rate of degradation of the environment. This offers more possibilities of activities in the scope of sustainable development than in areas distinguished by high dynamics of economic growth. A clean environment, low population density, and a relatively low distance from better developed regions (local centres) may soon become serious advantages of the discussed area. This is supported by numerous activities in the scope of environmental protection conducted on both sides of the eastern boundary of the Lubelskie Voivodship. The Cross-border "West Polesie" Biosphere Reserve is a good example. It was established under the auspices of UNESCO in the territory of Poland, Ukraine, and Belarus. Another example is the "Roztocze" Biosphere Reserve, currently being established in the southern part of the discussed area (also under the auspices of UNESCO). The dynamic development of environmental protection, systematic expansion of the existing protected areas, and establishment of new ones suggest that chances for the sustainable development of the area have been recognised in Poland, Ukraine, and Belarus.

The developing cooperation of the border areas, based on the use of the existing, and construction of new transport connections, is undoubtedly a factor decreasing the level of peripherality of

the discussed area. Unfortunately, the barrier in the form of the national border, also constituting the border of the European Union and the Schengen Area, is so strong that it has become the dominant development factor. Even an extremely modern and optimal transport and communication network cannot neutralise its effect. The only viable possibility to reduce such a strong effect of the border on local development seems to be making its character approximate to that of the internal borders of the European Union. In practice, this means including Ukraine and Belarus within the structures of the European Union. This will probably not occur any earlier than in several years. It should be remembered, however, that even after the expansion of the European Union to the east, a number of other strong development barriers will still remain, such as e.g. language diversity, or use of different alphabets. They can effectively delay the development of the discussed area.

## References

- Mały rocznik statystyczny 1939*. 1939. Warszawa: Główny Urząd Statystyczny Rzeczypospolitej Polskiej.
- MISZCZUK, A. 2008. "Dysproporcje w rozwoju pogranicza polsko-ukraińskiego w warunkach integracji europejskiej." In *Przekształcenia regionalnych struktur funkcjonalno-przestrzennych. Europa bez granic – nowa jakość przestrzeni*, edited by S. Dołzbłasz and A. Raczyk, 149–155. Wrocław: Instytut Geografii i Rozwoju Regionalnego Uniwersytetu Wrocławskiego.
- . 2013. *Uwarunkowania peryferyjności regionu przygranicznego*. Lublin: Norbertinum Wydawnictwo-Drukarnia-Księgarnia.
- WRÓBLEWSKI, Ł. 2012. "Peryferyjność geograficzna a peryferyjność ekonomiczna regionu przygranicznego." *Biuletyn Instytutu Zachodniego* (113):1–5.

## Maps

- Mapa Samochodowa Polski 1:1 000 000 [Roadmap of Poland 1:1 000 000]. Zakład Kartograficzny W. Cukrzyński, S. Goliński i Sp-ka, Warszawa 1939. (in Polish)
- Mapa taktyczna Polski 1:100 000. [Tactical map of Poland 1:100 000]. Wojskowy Instytut Geograficzny, Warszawa 1937. (in Polish)
- Polska – mapa samochodowa 1:1 000 000 [Poland – roadmap 1:1 000 000]. Wojskowy Instytut Geograficzny Sztabu Generalnego WP. Warszawa, 1947. (in Polish)