

**CENTRE FOR REGIONAL STUDIES  
OF HUNGARIAN ACADEMY OF SCIENCES**

**DISCUSSION PAPERS  
Special**

**OLD AND NEW  
BORDERLINES/FRONTIERS/  
MARGINS**

**East-Central European Regional Seminar  
Gyula, 9–12 October, 2008**

**Editor**

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## PREFACE

Centre for Regional Studies, Hungarian Academy of Sciences has organised the second East-Central European Regional Seminar – ECERS 2008 – in the city of Gyula, near the eastern border of Hungary. This conference was an important milestone of the co-operation between Polish and Hungarian researchers. The aim of the seminar was to support the initiative of Warsaw Regional Forums and expand the XVIth Polish-Hungarian Geographic Seminar. This meeting aimed to highlight different aspects, spatial issues and problems of East-Central European borders, and the complexity of borderlands.

On the first day participants took a short visit to Szarvas, and after that to Békéscsaba, the Department of Great Plain Institute – HAS CRS. On the occasion of the opening session they discussed the role of Békés county and the city of Gyula in crossborder cooperation with local notables and experts.

On the second day, there were twelve presentations about different regional and geographic approaches, which reflected innovative viewpoints. Most of the presenters talked about actual processes and conflicts of new spatial phenomena in EU countries, particularly crossborder opportunities, features of peripheral areas, environmental and social problems. They identified new opportunities of spatial development next to borderlands and talked about the unique potential of marginal areas. Some of the presentations were based on regional research; others were case studies or summaries of different pilot projects.

During the presentations the importance of the environmental, cultural, touristic and transport functions of borders and the long term perspectives of these kind of areas were emphasised. The main conclusion of the conference was that the special geopolitical and geographical positions give advantages for these zones. Everybody agreed that – beyond the recent political paradigm – there is a need to create multifunctional areas concerned with local cohesion, economic and ecological sustainability for these borderlands. This sustainability must be based on cooperation and partnership.

On the third day participants visited the city of Arad and met Romanian experts. They took a short trip to the transformed downtown and visited one of the most prosperous industrial parks of Romania.

The participants were: Marek Degórski, Roman Kulikowski, Marek Wieckowski, Konrad Czapiewski and Marcin Mazur from the Institute of Geography and Spatial Organization, Polish Academy of Sciences; Maria Grozeva, Boris Kolev, Chavdar Mladenov, Boris Kazakov from the Geographical Institute of the Bulgarian Academy of Sciences; and Antonín Vaishar, from the Institute of Geonics,

Czech Academy of Sciences, Ostrava. The Hungarian delegation was: Gyula Horváth, István Mezei, Erika Nagy, Gábor Nagy, Imre Nagy, Bálint Csátri, András Donát Kovács from the Hungarian Academy of Sciences, Centre for Regional Studies.

We hope that it was a really fruitful scientific workshop with useful discussions and colourful excursions close to the Hungarian–Romanian border.

The seminar presented a good occasion for strengthening the collegial partnerships. At the beginning of the first plenary session, we paid a one-minute silence to the memory of our honourable Polish colleague – Professor Andrzej Stasiak.

The studies of the present volume are published with the intention to promote a better understanding of the phenomena and processes of new cross-border relations and their impact on the socio-economic and environmental development of East–Central–European countries.

Kecskemét, May 2009

*András Donát Kovács*  
Secretary of ECERS

# **A BRIEF ESSAY ON BORDERS**

**BÁLINT CSATÁRI**

## **Introduction**

It was 25 years ago when I first participated on the 5<sup>th</sup> seminar of Polish and Hungarian geographers in Pécs, in 1983. Since then I have organised others in several interesting topics (e.g. the last decade of state socialism, change of systems in CEE, and their rural aspects). All of them were performed with much data, and computer support. After 25 years, having found out the topic of this seminar, I decided to break this classical geographic tradition.

I tried to create a geographic idea of border (*limes* in Latin) from another approach. It has been motivated by personal stories. One; there had been a series on television called *Game Without Borders* (*Jeux Sans Frontières*). The town of Kecskemét had succeeded well in this game. Few of us thought then that one could travel to Krakow from Kecskemét even without stopping at the 1000 years old border crossing point in 2008. Have the societies of CEE grasped already its significance?

The other story is even more personal. We made a trip to the Eastern Tatra mountains with my English son-in-law. Coming down from Morskie Oko I tried to explain him that the creek on the right hand side used to be the Hungarian–Polish border for 1000 years. I realised he didn't understand. That former border in the Tatra mountains has no relevance to an Englishman.

My two examples highlighted that it's worthwhile to examine borders according to a geographic way of thinking. Several approaches to geography in developed countries prove this. A dispute over this issue in the framework of a similar seminar could draw some attention. Let's start by analysing two main problems.

## **Border definition**

The definition of border carries different and on the other hand sophisticated meanings. Though the English language explains the definition of border in different ways (border, margin, frontier, barrier, etc.). In order to fold out this multiple meaning and give a general definition on border in a geographic sense, at least three clusters of border definition should be designated.

Theoretical borders belonging to the first group exist and have a significant effect on our life. These are in other words philosophical borders, or can be explained as borders of rules of human coexistence. Even “mental borders” is a correct definition, for one exists in the world of our thinking. A part of these have a direct effect on one’s acts and behaviour, and represent a significant share in behaviourist geography. If there’s a problem with these borders in a society like the CEE societies nowadays, communities become uncertain; they cease to consider these mental borders any more. This lack of moral barriers is revealing even in politics, entailing a further social uncertainty about borders of rules determining their everyday life.

It is a general occurrence that miscellaneous sciences give different definitions to borders representing the 2<sup>nd</sup> cluster. Ones relevant in the science of sciences, mathematics could play a dominant role. They cover a range from borders of geometric figures to the marginal value of functions, although we know that computerised cyber space based on mathematics has no frontiers. Borders of space theory in geography are very common to Euclidean space and space comprehension operating with classical border definitions. Traditional, or one can say, static geography defines or designates borders by itself. Borders like this are the ones of continents, climate zones, forest types and lands. Looking for the borders of dynamic spatial processes covering different areas could be a more difficult approach. Designating the borders of accession of some geographically central cities is a good example of that, since these borders are often different from static administrative ones.

Finally borders really determining our lives themselves in terms of regional research and planning can be grouped together. Site borders designating the basic geographical order of settlements, as well as their shapes and structure are of those kinds. These are the borders of blocks and districts in cities. The administrative borders of settlements are one of the key elements of urban planning and research, inside of which further borders can be located both by the general needs of local community and urban functions.

Other important borders are those of micro regions drawn up by the daily spatial interactions of inhabitants.

Disputes over regional borders in our countries are typical. New regions providing framework for EU regional policy have not been popularised yet for instance in Hungary. Unlike traditional counties, they haven’t become a part of people’s mental maps. Latter ones, which regional units carrying a special meaning have gone on living with borders marked by signs all around by roads.

Finally, language, ethnical, religious borders as well as country borders in the time-worn Carpathian Basin currently fading away all belong to this cluster.

In my opinion each of the three groups are essential in order to enable us express a well-founded opinion on several changes borders have presently been subjected to. I will tell you some examples next.



### **Some simple examples about the role and changes of geographical borders**

(1) Parcel borders are situated the closest to us. In respect to parcel borders, there are many rankling phenomena nowadays. In the old days, local communities have decided over the division of parcels. Mainly in the countryside, in villages, after sharing equities – but some places already in the beginning – the community was modest, and never hedged in a bigger area than needed for everyday life. Whether the parcel borders were arranged in a regular order, or there was a hodgepodge among them, which means that in reality they formed sets, they were accepted by the whole local community. From the middle 19<sup>th</sup> century – in line with wealth-growth – the separation of sites had strengthened. Nowadays, if we take gated communities (which were imported from the West to CEE countries) or the extremely expensive villas of the *nouveau riche* as an example, the attitude for separation has become stronger. Material segregation strengthens spatial segregation. The new borders block everyday communication within local communities. In case of gated communities, the inhabitants create their own rules within their newly created and strictly guarded borders.

(2) Changes in the administrative borders of settlements and microregions in Hungary highlight another interesting and different kind of problem. In the 1980's, a bunch of rural settlements were joined to cities due to positive discrimination concerning urban areas and the political and redistributive preferences of state socialism. Their number of inhabitants could easily reach the magical 100,000. Their share of deconcentrated budget consequently increased. After transition, more than 100 settlements declared their independence and separation from the cities. Administrative borders were redrawn year by year. The decision made on this local level of democracy brought separation on the level of communities. Positive tendencies were expected from separation, which mostly failed to occur.

Weird cases, when settlements claimed to be reallocated from a county to another one also happened. Not much later, they realised that changing county borders to municipality ones didn't bring general well-being.

(3) Even the changing borders of microregions have been a general practice in Hungary. Their number has increased by 40 in the last 20 years. Some interesting factors played a key role in this kind of border shifting. First, the number of small settlements gaining town status had risen. Afterwards these small towns intended to provide services to their own area in order to ensure influence on the microregion and concentrate financial sources of development. Therefore, one by one, they initiated the organisation of new microregions. Those acts entailed the appearance of new borderlines on the map of Hungary. Few words are said, however, about the basic tasks of supply quality within the borders, and that conditions of effective operation are deteriorated by fragmentation. Here, when our seminar is held, the

disintegration of Sarkad microregion was brought up. The possible close end of the microregion was demonstrated by showing a black coffin. Politics then withdrew. In absence of well funded objective data on the size and functions of microregions, their changes become unlimited.

(4) County and regional borders, although more solid in administrative terms, hardly exist mentally. Neither people nor socio-economic processes stop at these borders in almost any sense. Nevertheless, supply networks, subsidy systems, and European Union's convergence funds all target these main regional units. The border of this specific space called region and the inhabitants' spatial identity differ from one another. Therefore, regional programmes bring few results while leaving regional disparities intact.

(5) A more interesting geographical issue is the fading and permeability of country borders. It is evident that with some delays, nation state development in CEE has finished. Furthermore, these borders of living space of nations had generally failed to conform to either ethno-linguistic or natural borders, just like the border of Wallonia and Flanders splitting the Belgian Kingdom in the centre can be well detected nowadays. Such inner borders in our countries became more characteristic after official disappearance. One can consider for instance the language map of Romania or the cartogram showing electoral geographic results of Ukraine. These borders, evidentially of artificial nature, had become solid in the minds of the last 3 or 4 generations. Their mental stability and strength is a question to be answered.

One could mention here the famous rainbow example. If one set off from the Baltic sea to the Adriatic 4 –500 years ago, neighbourhoods could be easily found understanding each others language, enabling the traveller to reach his destination without trouble. Transforming nation state borders to language borders is a serious side effect of current border problems. The reinstallation of a rainbow effect is a prerequisite of the permeability and real disappearance of borders from the mental maps of local inhabitants. If only parcel neighbours of a multinational settlement could comprehend each others language as they used to 200 years ago. If only political leaders, economic and civil partners of nation states and regional areas all knew that the only solution is Europe without borders!

### **Summary**

Borders are variable. Their behaviour and effect is therefore diverse. Theoretical or mental borders, often based on principles, almost never interfere with borders drawn by scientific results, nor with political, administrative, linguistic or religious borders. Borders with different types and origins also have a diverse significance.

Well designated, functionally comprehensive and mentally existing borders may promote regional development, cohesion and local identity.

Badly drawn borders can form barriers. They could block development, restrain natural circulations, and become hardly or not comprehensible.

In my opinion, local, microregional and regional borders should gain in importance, while country, national, linguistic and religious borders should become more and more permeable.



REGIONAL ASPECTS AND  
COOPERATIONS

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# GEOGRAPHY OF THE CZECH BORDERLAND

ANTONIN VAISHAR – JANA ZAPLETALOVÁ

## Introduction

Borders between countries of the whole world have a length of about a quarter of a million kilometres. In the recent past, geographers most frequently dealt with the borderland with an aim to delimit the line of state borders with respect to facts given by natural, ethnic, economic or political conditions. This concept of the issue of borders reflected the ideology of national states. In spite of the fact that the idea starts to be anachronistic, ethnic wars were conducted even in Europe (Balkan) in the very recent past. Nevertheless, not even there are the efforts focused on the delimitation of borders any longer.

The issue of state borders was explored as a barrier limiting national markets, the free movement of persons and goods, and a periphery where the explored world ends. Works were investigating, for example, border permeability through individual border-crossings and the distribution of foreigners behind the crossings, possibly the transport conditions of state border permeability (*Marada, 2003; Halás – Řehák, 2008*). It was practically unimaginable at the time of iron curtain to include into a study territories behind the state border, although there are geographic phenomena that know nothing about them. This particularly concerns natural systems and environmental protection.

Advocates of European integration argue that the preference of the interests of nation-states and the establishment of their borders generated the two world wars in the 20<sup>th</sup> century. The latest change was the disintegration of the Soviet Union and Yugoslavia. Some questions are still open – see the problem of Kosovo or Moldavia. Basques raise demands for their separate national state as well, and a possible disintegration of Belgium cannot be excluded. Since its very beginnings, the European Union has struggled to replace international disputes and wars with cooperation.

Represented by the European Union, the Europe of these days tries to give a new meaning to state borders. The iron curtain does not exist any longer, and the majority of European countries entered the Schengen space, European currencies become gradually unified within the Euro, and work is in progress on the creation of common European policy. State borders lose their original sense of separating individual national states, and the borderland increasingly becomes a space for international cooperation. The concept and significance of state borders have dramatically changed, which puts forward a number of questions (*Anderson –*

*O'Dowd*, 1999). Borderland – at least in Europe – comes to be perceived not as a dividing line but rather as a potential line of bridges and contact points to connect regions (*Newman*, 2006). Europe begins to be talked about as a continent without borders and with general globalization tendencies wiping away the importance of state borders.

On the other hand, borders represent a product of need for order and security and they belong to human life (*O'Dowd*, 2001). This however holds true about borders in a general sense, i.e. borders of administrative units, regions and areas. A question is how much the character of borders between individual national states in Europe will approach the character of regional borders whose sense manifests first of all in space organization, the insurance of administration in the territory and definition of space identity. *Gorzalak* and *Jałowiecki* (2002) warn about considerable economic differences between individual states, which in some cases will not make it possible to do away readily with the existing barriers. However, this particularly concerns the external borders of the European Union. Some authors claim (*Murphy*, 1993) that the current change in the character of state borders also changes the approach to Europe's regional geography as such.

The paper aims at an assessment of the present situation in the Czech borderland, its current problems and their resolution. It was prepared within the framework of the grant project of the National Research Programme II of the Ministry of Education, Youth and Sports of the Czech Republic no. 2D06001 "Development interests of borderland regions".

### **Borderland as a geographic problem**

Contemporary geographers mostly perceive the European borderland as a certain peripheral territory, remote from central areas. Subjects of research are as a rule attempts to improve the borderland situation, possibly with the use of EU structural funds. Ever more frequent are also analyses of possible international cooperation – first between borderland towns or agglomerations, namely where the state border is not at the same time a physical barrier. The beginnings of cross-border cooperation date back to the end of the 1950s, to Rhineland. This potential cooperation found a reflection in the establishment of so-called euroregions (*Bufon*, 2007), their idea being transferred into the conditions of post-socialist countries within the framework of EU enlargement. Cross-border cooperation is supported from European financial programmes such as INTERREG. Practical issues of cooperation are studied e.g. by *Perkmann* (1999) and other authors.

It appears, however, that the efficiency of these activities lags behind expectations and often ends with proclamations. Problems are insufficient resources, obscure competences, duplication of efforts, one-sided orientation on physical infra-



structure and hard economic outputs rather than on the creation of social capital and trust. *Wallace* (1999) assumes that Poland, Hungary, Czech Republic and Slovakia became a new buffer zone between the west and the east, a source of cheap (namely Polish) labour force, an attractive place for German and Austrian investments and a space for borderland market places often with faked goods, prostitution, drugs and criminality.

The Czech situation is advantageous by the fact that all borders of the Czech Republic with neighbouring countries are internal borders of the European Union and of the Schengen space. In this respect, the Czech Republic does not have to face problems of outer borders that provide for the compactness of Europe (*Williams*, 2007) and can by contrast theoretically use its borders as a space for cooperation (*Jeřábek*, 2002). Are the conditions for such cooperation optimal?

First, we have to question whether the borderland is actually peripheral or marginal (*Havlíček – Chromý*, 2001). What we mean by peripheral character is remoteness measured by distance, accessibility in time or financial costs to overcome a distance from the national centre or from regional and district centres. Marginality we understand to be primarily backwardness as compared with the central regions of respective hierarchical levels.

While peripherality can be measured by geometric and time indicators, the analysis of marginality is more complicated. It may concern for example the lack of investments, which follows out not only from the remoteness and difficult accessibility but also from the poor advertising of regions, shortcomings in the sphere of human capital and in fact also from the subjective point of view because firm managers and their dependants are not interested in living on the periphery.

A relatively considerable complex of indicators concerning marginality may relate to the quality of human capital that can be measured for example by the level of education. The structure of available jobs, based mainly on manufacturing industries and services of the hierarchically lowest character does not allow to keep persons with higher qualifications in borderland regions, which in turn puts limitations on new investments and situation improvement. This is how the emerging abnormality further deepens.

Another question can be formulated as follows: is it possible under the conditions of the Schengen space to compensate for remoteness on a national scale by international cooperation with regional centres of the neighbouring country and to gradually fight marginality this way? What role can euroregions play? Apart from physical preconditions (closeness of regional centres to the neighbouring country), it is also necessary to take into consideration subjective factors, too. The hitherto experience (*Krätke*, 1999) suggests that time for the economic cooperation of business entities directly on the border has not ripened yet. This of course does not mean that cooperation should not be developed in other fields and directions. Suc-

cessfully developing today is cooperation between self-governments (*Breuer et al. 2007*).

In a geographic respect, a very relevant question is that of perceiving the cross-border regions as a whole. *Ladysz (2006)* analyzed the issue of economic restructuring and environment problems of the so-called Black Triangle on the borders of Bohemia, Saxony and Poland. The issue of environment and its protection, which knows nothing about borders, is particularly useful for research of this type. Another example may be the prospect of economic cooperation in the Alpine-Adriatic region that opened after the accession of Slovenia in the European Union, and which *Ziener and Hössl (2007)* studied through controlled interviews with the cooperating partners. Yet another possibility is, for example, regional research in the territorial parts of euroregions (*Gorzym-Wilkowski, 2005* or *Vaishar et al. 2007*).

In Czech geography, theoretical problems of borderland in modern history were studied e.g. by *Dokoupil (2000)*. *Jeřábek et al. (2004)* published a crucial modern work dealing with the Czech borderland. Part of this work is borderland typology.

### Excursion into history

The situation will be better understood if we make a short excursion into history. The existing border was more or less stabilized towards the end of the 10<sup>th</sup> century.<sup>1</sup> A considerably extensive part of the state border is formed by a barrier of mountain ranges, namely in Bohemia. Moravia is a traditional transit area, open to the north and the south but demarcated topographically in the east and in the west.

It is logical that the historical colonisation of Bohemia and Moravia started from lowlands in the watersheds of main watercourses with favourable conditions for agriculture and only later continued to uplands and highlands. In the 13<sup>th</sup> century, Czech monarchs (beginning with Premyslid Ottakar I) tried to colonise mountain regions of which some were border regions, too. A number of immigrants (peasants and miners) arrived from neighbouring German-speaking countries. These people successfully colonized vast borderland areas, developing there not only agriculture but also mineral extraction and later industries. Co-existence with Czechs was usually free of problems, namely in the 15<sup>th</sup> and 16<sup>th</sup> centuries when the Czech Lands were considered the most tolerant in terms of religion and ethnicity. Impetus for bringing Czech and Germans closer together provided also

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<sup>1</sup>In the course of history, there were also other territories that temporarily belonged to the Czech state (Lusatia, Kladsko, Malopolsko), which are however not considered to be the core of the Czech Republic. The Cheb area (Chebsko) was annexed in 1322 as the last territory. Exception are some small territories annexed to the then Czechoslovakia after World War I, especially with respect to existing railways (Těšín area, Valtice).

the theory of Martin Luther who was to a certain extent a follower of Jan Hus in his effort to reform the Church. A negative turnover that was however motivated first by religious reasons occurred under the reign of the Hapsburg dynasty.

In the period of industrial revolution, which brought emphasis on the idea of national states, contradictions in the then Austria–Hungary changed into national disputes. One of such contradictions was between the governing conservative and Catholic Church oriented Austrian Germans and the economically progressive Czechs who were however rather indifferent in terms of religion. In spite of the fact that the first Czechoslovak Republic (1918–1938) was the most democratic country in Central Europe, most tolerant to ethnical groups and religions, it failed to resolve satisfactorily problems accumulated in the past. Moreover, the German-colonised borderland began to show the recession of traditional industries and hence economic decline. This culminated in events leading to the Munich Agreement in 1938, its consequences in the form of starting World War II by Hitler, and to the subsequent evacuation of a greater part of German population from the then Czechoslovakia.

The German population was replaced by new settlers from the inland, repatriates from some European countries (Hungary, Romania, Volhynian Czechs and other), later also from Greece.<sup>2</sup> Some inhabitants were sent to the borderland under pressure. It was impossible to substitute for the original population's amount and quality in the borderland, nor was there interest either (perhaps with the exception of larger towns). The borderland was to become a buffer zone with a lower population density. The population's social structure was modified so that a repeated coming into existence of the middle class in the borderland was prevented (Nosková, 2008). The great experiment reflected in the whole post-war development of the borderland, which exhibits other demographic and social values as compared with the inland and different regional and local perception. It seems that the relation of people to their regions and domiciles changes in a positive way only with the contemporary generation because any tradition of cross-border relations became extinct due to population exchange and iron curtain as well as due to difficult permeability of borders with the former socialist countries (German Democratic Republic and Poland).

Due to the above described historical development, humanities and social scientists do not identify borderland with the territory adjacent to the state border but rather with the territory from which the German population was evacuated. The territory reaches at some places relatively deep into the inland (e.g. in the Svitavy area). On the other hand, the Slovak border is not considered to be borderland in this respect. This “new” state border is in fact historically stable similarly as the

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<sup>2</sup>It should be added that the population of today's western Poland was evacuated in a similar way, which means that a greater part of the Czech–Polish border experienced population exchange on both sides of the border.

border between the Czech state and Hungary, constituting an inland border only in 1918–1938 and 1945–1993.

### **Basic characteristics of the Czech borderland**

State borders can be characterised as an empirical manifestation of state authority in the territory (*Paasi*, 1999). The Czech Republic neighbours with Poland (762 km), Austria (466 km), Slovakia (252 km) and Germany (810 km). For historical reasons we divide the German border into Bavarian and Saxon sections. The respective border sections have a relatively significant effect on the character of the border. Borderland can be defined as a territory, objectively and subjectively affected by the state border. The application of this definition would itself call for detailed research. Therefore, we tried to define the borderland in the simplest possible way with the corresponding geographical logic.

We based our study on the conviction that relevant territorial units for the research of social type are regions of the town-hinterland type. For data-related reasons, the smallest territorial unit used for these purposes is the district, for which an important part of available data can be aggregated. A problem is, however, that districts (that were in the past regime conceived as units within the framework of which attempts were made to equalise conditions) are mutually more alike than differences inside the districts – between their centres and peripheries. This is why the attempts at characterizing the borderland by means of district-level data did not show too many differences.

Due to these reasons, we used microregions as a basis for our study, by means of which we intended to characterise the actual borderland. Concrete data were provided by government authorities. Regarding the excessively fragmented structure of self-governing municipalities in the Czech Republic, it was necessary to carry out the territorial integration of state administration. Selected municipal (largely town) authorities were accredited to perform some acts of state administration for surrounding municipalities as a service because there is no relation of superiority and subordination between the accredited authorities and authorities for which these accredited bodies execute some acts of state administration. Nevertheless, watershed areas were created of the town-hinterland type, several in each district, which could be adopted as territorial units for our analysis – altogether 110 units.

Although these territorial units capture the situation better than districts, not even they are ideal. Their size differs in dependence on the strength of the centre and character of its hinterland. The areas are in some cases adjacent to the border, sometimes perpendicular to it, which means that they may include both villages situated right on the border and settlements relatively deep in the inland. The differences between centres and their hinterlands exist as a rule even there, although

at a lower level. The problem will be resolved only at a detailed look upon the chosen microregions.

As suggested above, the Czech borderland differs among other things also by the type of state border with respect to both historical development and currently existing relations. The Bavarian and Austrian borders were part of the iron curtain while the Saxon and Polish borders represented an internal boundary of the so-called socialist block. The Slovak border was an inland boundary (from 1968 a federal border). Today, the Bavarian border is considered an axis of development that brings innovations. The Slovak border is the only one where the post-war exchange of population did not take place. Linguistically different are the Austrian, Bavarian and Saxon borders; linguistically similar are the Slovak and Polish borders. Most state borders represent a physical barrier; the only exceptions are the Moravian-Silesian parts of the Polish and a part of the Austrian borders. All the above given facts reflect in the borderland character. All these borders constitute an inner boundary of the European Union and Schengen Space. However, because the Czech Republic still has not adopted the Euro, all these borders are at the same time the currency borders.

Nevertheless, the borderland character differs not only in the character of the state border but especially by the character of settlement and by the economic base. *Hampel* (2000) mentions the key factors of differentiation being macro-location and economic specialisation. There are primarily two areas in the borderland, which developed from heavy industries based on coal mining: the north-eastern borderland (Ostrava-Karviná coal mining region) and the north-western borderland (the belt below the Krušné Hory Mts. [Erzgebirge]). These areas are relatively urbanised but struggle with problems of economic restructuring, poor environmental image and relatively high unemployment.

Other borderlands can be generally denoted as rural although even there are some towns of medium size in south-eastern Moravia (Hodonín, Břeclav) or in north-eastern Bohemia (Náchod, Trutnov). An important difference is, however, that south-eastern Moravia is a lowland region with formerly booming agriculture and with the corresponding structure of large rural villages and small towns. By contrast, the other borderlands are mainly of mountainous character. In the north, there are areas with the traditional textile, glass, woodworking and engineering industries and a relatively dense pattern of small towns. The Bavarian borderland and the western part of the Austrian borderland can be characterized by small and very small settlements declining already since the end of the 19<sup>th</sup> century. The evacuation of the German population precipitated and accentuated the process.

It is therefore a legitimate question whether we can discuss general problems of the borderland when the individual borderland sections are so different. In our opinion, the borderland of the Czech Republic also has a number of identical features and therefore we proceed to the following analysis of basic problems.

### **Identification of basic problems and ways for their solution**

Prior to the identification of the main problem, there were hypotheses based both on national and foreign literature and on our own experience. The hypotheses are as follows:

- The borderland – namely its rural part – is jeopardized demographically. People leave for work to town centres and central areas of the country. The remaining population is ageing.
- Due to the reluctance of developers to invest into growth, the borderland suffers from the lack of job opportunities and hence features high unemployment. The structure of diminishing jobs is unfavourable with a high proportion of endangered manufacturing industries.
- With respect to the specific historical development, the population's qualification structure in the borderland is of lower quality, which may be a limiting factor in future development.
- Borderland infrastructure, namely its social part, is poor and provides for neither future economic nor demographic growth.
- Regarding the physical and geographical conditions, a considerable portion of the borderland is an active area of nature conservation and tourism. Nature qualities paradoxically profited from the presence of the iron curtain.
- Remoteness can be only to a limited extent be compensated for by cross-border cooperation. Apart from the historical, psychological, linguistic or currency barriers, most borders are constituted by the natural barriers of mountain ridges or rivers. Euroregions and other associations primarily serve to raise funds from the European Union – not to establish cooperation.

We tried to verify the above hypotheses empirically based on existing data (*Vaishar – Dvořák – Nováková – Zapletalová, 2008*). Fifty percent of border microregions actually lose population while in about ten percent of them the situation is more or less stagnant. Nevertheless, nearly 40% of microregions increase their number of inhabitants; thus, it would be difficult to generalise the phenomenon. Moreover, the share of inhabitants living in the borderland increased between the censuses in 1991 and 2001 from 24.1% to 24.8%.

Of 1038 borderland municipalities with a population less than 2 thousand persons, 626 recorded a population increase, 386 recorded a population decrease in 2002–2006; in other cases the total balance was zero. Among 229 municipalities with population less than 200 inhabitants, which are hypothetically most endangered by depopulation tendencies, we found a population increase in 109 cases and a population loss in the same number of municipalities. Towns in the borderland recorded a population decrease in nearly all cases. This shows that an effect

stronger than border location is that of suburbanisation and counterurbanisation tendencies.

In spite of the fact that the first half of the first decade of the 21<sup>st</sup> century was affected by the entrance of strong population cohorts into the process of reproduction in consequence of the post-war baby boom in the 1970s and at the present time, the first of the hypotheses cannot be considered corroborated.

Similar to other European countries, the Czech population is ageing. As to the share of persons at pre-productive (1–14 years) and post-productive (66 and more) age, the situation in 85 % of borderland regions is better than the national average. This can be interpreted so that ageing is, relatively speaking, not a problem of the Czech borderland yet. We can assume that the situation results from the post-war population exchange in a greater part of the borderland as well as from the industrialisation accompanied by mass immigration into industrial microregions in northwestern Bohemia and in the Ostrava agglomeration. Thus, a young age structure came to existence that has a tendency to reproduce.

The Czech borderland is definitely an attractive place sought by large developers. This may however not hold true at all times for a number of small and medium-sized companies from Bavaria or Austria. Natural persons may like to have their personal investment on the Czech side of the border, too – for example in housing or recreational facilities. Unemployment in the Czech borderland is definitely higher than the national average; but it is markedly differentiated. The highest unemployment does not show only in remote microregions but primarily also in the basins of northwestern Bohemia and in the Ostrava agglomeration. Those combine with several least developed microregions with weak centres. On the other hand, unemployment in about 40 % of microregions is lower than the national average and even lower than in many important centres. Thus it seems that the rate of unemployment is still more an issue of economic restructuring than remoteness.

The proportion of persons over 15 years of age with the tertiary education is in all 110 borderland microregions below the national average. This shows that qualification is an actual and limiting factor in developing the Czech borderland. The orientation of employment on traditional manufacturing industries with a minimum of progressive technologies corresponds to this low qualification. Although economic activities move from manufacturing to non-manufacturing branches in the borderland, too, the process is much slower than in the inland.

The situation has a number of important consequences. With the existing qualification structure and general cultural standard of population, it is difficult to labour for the localization of more progressive industrial branches including services of higher order. The factor may be limiting also for the development of cross-border cooperation because people with lower standards of qualification and poor knowledge of history and languages are simply not prepared enough to communicate with their neighbours.

The cultural standards of the borderland reflect in its image and perception on the part of residents and visitors. In general, the borderland is often perceived as a territory inhabited mainly by Germans before World War II, who were later evacuated and replaced mostly by Slavonic nationals. It further implies that the borderland with Slovakia is not as a rule taken for true borderland. Inhabitants of the borderland themselves did not feel at home in this territory in several post-war generations and no relation developed in them to soil, village, or region. It should be pointed out that the relation to soil could not have developed due to early collectivisation of agriculture. The inhabitants in the borderland show even different electoral preferences as compared with the inland population (*Daněk, 2000*).

On the one hand, the localisation of social infrastructure facilities is a function of the size of centres and their watershed areas, and on the other hand, it is also an issue of historical traditions and the attractiveness of microregions. It follows that we find fewer schools, hospitals and cultural facilities of higher order in the borderland than in the inland. About a quarter of microregions lack even any basic educational, health care or social facilities. The concerned microregions usually have centres with less than three thousand inhabitants. Above-average amenities can be found in this sense only in spa resorts.

A great part of borderland areas in the Czech Republic is of piedmont and mountainous character with only a few exceptions. In these areas, a considerable number of national parks, protected landscape areas, nature reserves, biosphere reserves and areas of Natura 2000 are situated. The preservation of valuable landscape segments is one of consequences of the government's economic policy in these territories in 1948–1989. Although the preserved natural values in the territory are good prerequisites for nature conservation, development of tourism and various sports activities, conservation often becomes a limiting factor to the economic growth of these regions.

A certain degree of nature conservation is usually on the other side of the border, too. Due to this reason, nature conservation appears at present one of the most progressive elements of cross-border cooperation (Krkonošský Národní Park and Karkonoski Park Narodowy, Protected Landscape Area of White Carpathians – PLA Bílé Karpaty/Biele Karpaty, PLA Beskydy/PLA Kysuce and PLA Horná Orava/ Park krajobrazowy Żiwiecki, Park krajobrazowy Beskidu Śląskiego, Beskidu Malego and Babiogórski park narodowy (national park), Šumava National Park and the Protected Landscape Area Šumava/Nationalpark Bayerischer Wald, National Park Podyjí/Nationalpark Thayatal, National Park Bohemian Switzerland/Sächsische Landesschiftung Natur und Umwelt). The aim of cooperation in this field is the conservation of natural assets on both sides of the border, the demarcation of individual conservation zones, the regulation of visitor numbers, the coordination of border permeability etc.



One of the official guarantors of cross-border cooperation are euroregional associations. Euroregions conjoin legal entities (towns, municipalities, regional authorities and other legal persons) into associations purposefully focused in their programmes especially on cooperation exceeding the Czech state border with similar legal entities in the border regions of neighbouring countries. Their functioning depends on the common interests of associated municipalities and their inhabitants on the Czech side of the euroregion as well as on the common interests of partners on both sides of the border. *Popescu* (2008) calls the process of establishing euroregions “reterritorialisation of Europe”.

Practically all municipalities in the Czech borderland are members of some of thirteen euroregional associations that were gradually established in the Czech Republic from 1991. Euroregions in the Czech Republic occupy ca. 66% of the country's territory, some of them reaching deep into the inland. This is why we cannot speak of all municipalities – members of euroregions being interested in the cross-border cooperation. In spite of the fact that the euroregional associations have been functioning for over 15 years, cross-border cooperation is still at its very beginnings. According to *Grix* and *Houžvička* (2002), the main barriers to the development of cooperation are three: language, mentality and economic disparity.

The generally declared areas of cooperation in euroregions can be summarized as follows: cooperation in land-use planning, the conservation and enhancement of the environment, the improvement of living standard, the development and enhancement of infrastructure overlapping the borders, the development of collaboration in fire-fighting and after natural disasters, the development of tourism and culture, and the improvement of interpersonal relations. In general, we can say that best developing is cooperation in the prevention and settlement of losses after natural disasters, in the sphere of conservation, joint advertising of the territory in tourism, learning the culture of neighbouring regions. Collaboration is also frequent in the development and enhancement of infrastructure. Projects focused on infrastructure and on the improvement of interpersonal relations are most successful in winning resources from EU funds.

### **Discussion and conclusion**

There are several conclusions following from the above facts. The marginality of borderland can be seen primarily in the lower qualification and hence in a generally lower cultural standard, which correlates with poor social infrastructure. On the other hand, depopulation, ageing and unemployment do not represent in these days a problem of the borderland as a whole, but rather a problem in some borderland sections. The borderland struggles especially with the problems of economic restructuring from mining and heavy industries into the tertiary sector, which also

applies to borderland sections with non-existing distinct centres. Expressed in a simplified way, we can say that problems can be seen on both poles of residential structure: in the largest towns and the most densely populated borderland parts as well as in microregions with the lowest population density and very small centres. It seems that medium-sized settlements enjoy the most optimistic prognosis.

The future development may bring several changes. The demographic potential facilitated by population exchange after World War II will gradually become depleted. Production basis, which is (apart from spas and some other few activities) focused as a rule on traditional manufacturing industries accommodated to the existing qualification standard of labour force, may decline. In that case, attention should be focused on overcoming barriers in the use of a greater part of the territory for tourism.

As to a possible use of cross-border cooperation for development, this comes into consideration only in some borderland sections. Physical barriers are vague particularly in the eastern part of the border with Poland, in the territory of historical Silesia. The issue of the further development in the Ostrava – Katowice space, which offers itself for linking up with the historical identity and establishing multi-ethnic corporations, becomes topical (*Kłosowski – Prokop – Runge, 2004*). However, both prospective partners struggle with the problems of restructuring so far. Other sections of the Silesian border as well as the eastern part of the Czech–Austrian border are well permeable in terms of physical and geographic conditions, too. The reason for not seeing any more important collaboration is probably due to the fact that both parts of the border are distinctly marginal on their national scales.

Certain signs of development can be observed in the Cheb region and in some other sections of the northwestern borderland. As compared with Saxony, the border is an expressive natural barrier (although the Vejprty area is already situated behind the main ridge of the Krušné hory Mts [Ergebirge] and opens into Germany). Essential is the space opening along the Ohře River, i.e. to Bavaria, though. The Czech-Bavarian border represents a certain developmental line (in both the positive and negative sense). The situation is further aided by the fact that exactly within this space, the triangle of the world-famous spas Karlovy Vary, Mariánské Lázně and Františkovy Lázně occurs on the Czech side, of which the last mentioned town is situated only several kilometers from both Saxon and Bavarian borders.

The future development of Czech borderland ought to be monitored with respect to the ongoing processes of urbanization (suburbanisation, counterurbanisation), to the change of border character, the movement of labour force from manufacturing to non-manufacturing branches of economy, to the increasing significance of leisure-time activities, amenity migration etc. In this respect, a number of negative prognoses can be elaborated (the deterioration of the economic and demographic situation, deepening of marginality) and make their correction by using

positive prognoses (the development of cross-border cooperation, enhanced use of nature attractions in borderland areas).

### References

- Anderson, J. – O'Dowd, L. 1999: Borders, border regions and territoriality: contradictory meanings, changing significance. *Regional Studies*. 7. pp. 593–604.
- Breuer, T. – Hoffarth, M. – Kolejka, J. – Werner, E. 2007: Perspektiven grenzüberschreitenden Dorfentwicklung beiderseits der deutsch-tschechischen Grenze. *Geographische Rundschau*. 6. pp. 50–57.
- Bufon, M. 2007: Border regions in a re-integrated Europe. *Moravian Geographical Reports*. 1. pp. 2–12.
- Daněk, P. 2000: Does exist a political culture of the Czech borderland? *Geografie – Sborník České Geografické Společnosti*. 1. pp. 50–62.
- Dokoupil, J. 2000: Theoretical approaches to the problems of borderland with application on the Czech – Bavarian space. *Geografie – Sborník České Geografické Společnosti*. 1. pp. 10–18.
- Gorzela, G. – Jałowicki, B. 2002: European boundaries: Unity or division of the continent? *Regional Studies*. 4. pp. 409–419.
- Gorzym-Wilkowski, W. A. 2005: Region transgraniczny na tle podstawowych pojęć geograficznych – próba syntezy. *Przegląd Geograficzny*. 2. pp. 235–252.
- Grix, J. – Houžvička, V. 2002: Cross-border cooperation in theory and practice the case of Czech – German borderland. *Acta Universitatis Carolinae, Geographica*. 1. pp. 61–77.
- Halás, M. – Řehák, S. 2008: Contribution to the „anatomy“ of the common frontier area of the Czech Republic and the Slovak Republic. *Geografický Časopis*. 3. pp. 279–298.
- HAMPL, M. (2000): Border regions in the Czech Republic: contemporary tendencies of development differentiation. *Geografie*. 3. 241–254.
- Havlíček, T. – Chromý, P. 2001: Contribution to the theory of polarized development of a territory, with a special attention paid to peripheral regions. *Geografie*. 1. pp. 1–11.
- Jeřábek, M. 2002: Cross-border cooperation and development in Czech borderland. *Acta Universitatis Carolinae – Geographica*. 1. pp. 45–60.
- Jeřábek, M. – Dokoupil, J. – Havlíček, T. et al. 2004: *České pohraničí – bariéra nebo prostor zprostředkování?* Praha, Academia.
- Kłosowski, F. – Prokop, R. – Runge, J. 2004: Territorial socio-economic system of borderland in the Silesian region and Moravian-Silesian region and strategies of its development in the period of political and economic transformation. *Moravian Geographical Reports*. 2. pp. 35–45.
- Krätke, S. 1999: Regional integration of fragmentation? The German-Polish border region in a new Europe. *Regional Studies*. 7. pp. 631–641.
- Ladysz, J. 2006: Chosen aspects of sustainable development on the Polish, Czech and German borderland. *GeoJournal*. 1. pp. 1–7.
- Marada, M. 2003: Transport infrastructure of the centres in the Czech borderland. *Geografie – Sborník České Geografické Společnosti*. 2. pp. 130–145.
- Murphy, A.B. 1993: Emerging regional linkages within the European Community: challenging the dominance of the state. *Tijdschrift voor Economische en Sociale Geografie*. 2. pp. 103–118.
- Newman, D. 2006: The lines that continue to separate us: borders in our “borderless” word. *Progress in Human Geography*. 2. pp. 143–161.
- Nosková, H. 2008: Proměny českého pohraničí v letech 1945 – 1950. In: Vajdová, Z. (ed.): *Aktéři rozvoje regionu – Orlicko. Sociologické studie*. Praha: Sociologický ústav AV ČR. pp. 14–28.

- O'Dowd, L. 2001: Analysing Europe's borders. *IBRU Boundary and Security Bulletin* Summer. pp. 67–79.
- Paasi, A. 1999: Boundaries as social practice and discourse: the Finnish-Russian border. *Regional Studies*. 7. pp. 669–680.
- Perkmann, M. 1999: Building governance institutions across European borders. *Regional Studies*. 7. pp. 657–667.
- Popescu, G. 2008: The conflicting logics of cross-border reterritorialization: Geopolitics of Euroregions in Eastern Europe. *Political Geography*. 4. pp. 418–438.
- Vaishar, A. – Cetkovský, S. – Martinát, S. – Nosková, H. – Zapletalová, J. 2007: Cross-Border Region Králíky Miedzylesie. *Moravian Geographical Reports*. 2. pp. 40–54.
- Vaishar, A. – Dvořák, P. – Nováková, E. – Zapletalová, J. 2008: Settlement problems in the Czech borderland. *Geografický 2Casopis*. 3. pp. 241–253.
- Wallace, C. 1999: Crossing borders: mobility of goods, capital and people in the central European region. In: Brah, A. – Hickman, M. J. – Mac an Ghail, M. (eds.): *Global futures: migrations, environment and globalization*. London, Macmillan. pp. 185–209.
- Williams, M. B. 2007: On Europe's Edge: Changing borders in Central and Eastern Europe. *Contemporary Studies in Economic and Financial Analysis*. 89. pp. 137–171.
- Ziener, K. – Hössl, P. 2007: *Grenzüberschreitende Wirtschaftskooperation zwischen Kärnten, Slowenien und Friaul-Julisch Venetien*. Klagenfurt, Drava Verlag.

# **ARE ENVIRONMENTAL CONDITIONS AMONG FACTORS BEHIND NEW SPATIAL PATTERNS?**

**MAREK DEGÓRSKI**

## **Introduction**

In the perceptions of many, the environment and landscape have been, and still often are, minor parts of the socio-economic system, whose management is frequently in conflict with regional development, both in spatial and purely economic terms. Investigation of the link between being green and being successful economically has thus been a core topic from the spatial management point of view (*Walley – Whitehead, 1994; Schaltegger – Figge, 1997; Degórski, 2007, 2008a*). It is now ever more common for scientists and those involved in the planning of regional development to seek out structural solutions that allow a pro-environmental policy to be pursued en route to economic success, where the latter is expressed, not merely in terms of amounts of resources used, but also in regard to optimised spatial management. Today's environment is having a value attached to it – *inter alia* through assessment of its potential to generate energy, to supply biotic resources and to satisfy people by way of its possession of valuable landscape features (*Degórski, 2008b*). In short, it is being treated as an important factor behind regional economic development, joining with the economic and social factors in determining directions that development is to take, ways in which it is to be achieved, means of implementation and consequences.

The aim of this paper is thus to offer a new view on the environment and its role as regards local and regional development, as well as to assess environmental conditions as factors potentially underpinning new spatial patterns.

## **The environment as a factor behind regional development**

Since the level of public awareness of the environment is growing in many countries (and especially those that are most highly-developed), ever greater weight is being attached to the role the natural environment plays as an integral part of the megasystem of the geographical environment, where this is deemed to encompass both the socioeconomic and physical systems. Those two systems are mutually interlinked by way of interaction, which is to say that each is to the other as an object is to its surroundings (*Degórski, 2005*). In the context of the structure and

functioning of geographical space we also perceive the multifunctional nature of the natural environment, and the significant role it plays in shaping both human quality of life and health. Since these functions are not merely natural or ecological in character, but also have clear economic and social sides (not least in terms of supply of natural and mineral resources, the absorption of pollutant emissions and accumulations of waste and the provisioning of opportunities for rest and recreation thanks to the resources of habitat and landscape present), it is more and more usual for them to be deemed an element in the development of a given region or whole country (*Laguna*, 2004; *Degórski*, 2007).

Because society's view of the environment's role has been evolving in many countries, opportunities for further improvement in people's living conditions are now deemed to lie, not merely in economic and social development, but also in care for the natural environment, this being manifested first and foremost in optimisation of the use and management of its potential (*Dupont et al.* 1998; *Berbeka*, 2005; *Murphy*, 2006). A part of this involves the incorporation into regional policy of the idea (at least) of sustainable development, with an awareness that the latter's implementation demands the attendant introduction and pursuit of a series of logistical activities and socioeconomic solutions (WCED, 1987). Where engaged in, such activity very often proves a factor capable of activating economic development in the given region, this reflecting the need for new investment if the production of pro-environmental facilities is to be engaged in, infrastructure in water, wastewater and waste management built or modernized, and new solutions applied in power supply and transport. There is thus an inevitable development of such economic sectors as construction, commerce, transport and services.

It is most easy to note the need for action to optimise the quality of the natural environment and the capital-intensiveness thereof in countries most seriously behind when it comes to introducing sustainable development principles. The CEECs offer a very good example here. Prior to their EU pre-accession and accession periods, these countries pursued a characteristically liberal policy as regards care for the natural environment, particularly when it came to the limiting or minimising of the negative impact of anthropopressure on the functioning of the natural system. The inclusion of these states into EC structures required their adoption of regulations in force in the Union, including as regards the protection and management of the environment in line with sustainable development principles. Adjustments of the basic standards as regards environmental quality have been requiring huge financial outlays. As of the end of 2003, the necessary funding to achieve goals arising from the environmental *acquis* was found to amount to between almost 12% of the GDPs achieved by Lithuania and Slovenia and some 71% of the GDP generated by Estonia (*Degórski*, 2007).

### **The concept of the relation between outlays on the environment and economic effects**

The complexity of the environment-society-economy system is such that the search is on for attractors, i.e. equilibrium points attracting each trajectory of a given dynamic system, notwithstanding the fact that non-linearity of socio-natural relations is a factor in certain conditions creating systems characterised by metastability (Domański, 2008). The potential of the natural environment may thus be regarded as one of the more important functional elements to the ecological and social system (Glasson, 2000; Morris – Therivel, 2000; Degórska – Degórski, 2003), being the generator of its development and thus capable of giving the measurable and definable economic effects that shape new patterns in multifunctional geographical space (Degórski, 2003, 2007).

Today the environmental economy is associated with a diversity of views on the economic impacts of pro-environmental investments, particularly those associated with the protection of the environment and the landscape and the effort to maintain or raise an area's attractiveness. In line with the model for the attainment of economic success as set against outlays on the protection and optimal utilisation of environmental resources (as developed by Schaltegger – Synnestvedt, 2002), there are three possibilities through which relations between outlays and obtained effects are likely to be shaped. Each of the presented solutions has its advocates and opponents. However, precise analysis of the solutions proposed by the aforementioned authors makes it clear that all of them are possible, the actual economic effect obtained being dependent on a series of conditioning factors both endogenous and exogenous (Figure 1).

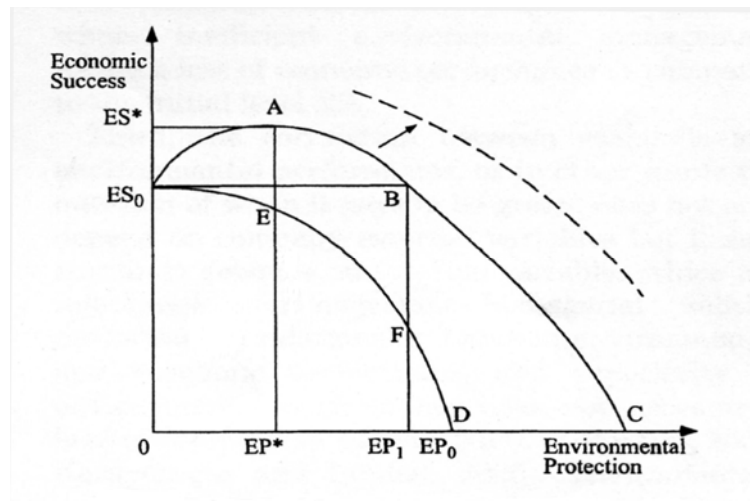
The courses to the curves show very clearly that increased outlays on integrated protection of the environment and the landscape do not automatically bring measurable attendant benefits for the economy. Indeed, there are cases in which, notwithstanding the increasing of outlays (line C-B-A), the final effect is the same, which is to say that the curve is found at the point of departure for economic success (ESo). Frequently, however, pro-environmental investment does bring measurable economic success and generates measurable benefits (as curves achieve point ES). Some environmental economists thus assume a straight line relationship whereby profits increase directly with outlays on optimising the protection and utilisation of the environment's potential (dashed line).

There is of course no straight translation from outlays deployed to profits obtained in the context of the protection and utilisation of the potential of the environment. All types of activity in the defined spatial unit must meet three main conditions, i.e.

- possess a very precise valuation of environmental potential – first and foremost as that relates to natural resources and the landscape, and hence allows for precisely defined protection of its most valuable fragments;
- have a defined development strategy that takes account of the optimal utilisation of natural potential, making reference to the sustainable development concept providing for the rational management of natural space;
- see account taken – in general policy for a region's development – of the separate sectoral policies, where these include such an environmental policy as will allow assumed economic goals to be achieved, while pro-environmental solutions are retained and able to impact upon the quality of life.

Figure 1

*Possible relations between corporate environment protection and economic success*



Source: According: Schalteggera and Synnestvedta, 2002.

In the highly-developed countries, ever more attention is being paid to quality of life, this reflecting the role of a high-quality of the environment and aesthetically valuable landscape features when it comes to the development of the residential function, as well as the quality of food produced, high-quality drinking water and clean air. The achievement of ever higher standards of living requires that decisionmakers pay more and more attention to the spatial order, and to the sorting out of the relationships ongoing between rural and urban space.

In constructing a model for outlays on the environment as against economic success, it is necessary to determine also the so-called maximum incremental social



tolerance irreversible costs (MISTIC) index, since this provides for an assessment of the level of readiness in society (not least in its organizations introducing green solutions, if often only at great expense).

### **The urban-rural relationship**

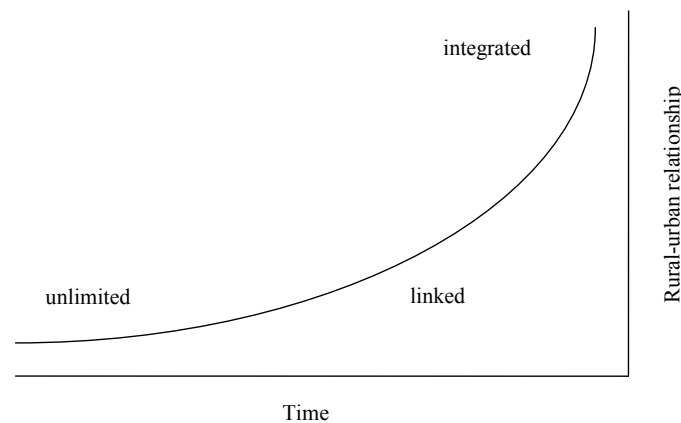
One of the main factors influencing the shaping of structures in geographical space is the development of areas of both urban and rural settlement, as well as of the spatial and functional linkages between them. The sprawling of urbanised areas leads to the anthropisation of the environment and the fragmentation of natural space, and thereby to a weakening of both the cohesion of natural-system linkages and the environment's biotic potential. In Poland, areas that have undergone marked anthropogenic transformation currently account for some 4.8% of the country, while the rate of increase is at present of 0.1% per decade on average. From among the directions as regards the re-designation of agricultural and forest land for non-agricultural purposes, there is a particularly noticeable increase in the share of designated orchard land (from 26.4% in 1990 to 47.7% in 2006). Other trends to changes in land function tend to fluctuate much more (e.g. when it comes to transport and/or industrial functions).

Within spatial development and the functional relationship ongoing between rural and urban areas it is possible to distinguish three main stages of interaction between the two categories of spatial structure (*Figure 2*). The first is characteristic for the state of both rural and urban structures taking shape – in which there is not yet any spatial limitation on development, while the linkage between countryside and town is mainly in the nature of a producer-client relationship. In the history of world economic development, these features were characteristic of the stage at which towns and villages were first located. Today it is confined to areas of low population density and weak economic development. With time, there is spatial development of urbanised areas as both towns and villages develop. There arises a greater functional dependence between city and countryside, as well as an overall development of areas settled. The result of this is ever more far-reaching fragmentation of the natural environment, and its anthropisation. The further development of settled areas both rural and urban leads to the ever-greater spatial integration of the two. This stage of development thus witnesses a blurring of the boundaries between settlement units, clear cases of urban sprawl, and hence very much enhanced pressure imposed by human beings on the natural environment. The shaping of a new spatial structure requires that planners take great heed of the need for spatial order. For even in such anthropogenically transformed environmental conditions, order remains a factor of significance creating a new pattern in space and determining the value of land. If we take care to ensure a high-quality environment

that maintains high sanitary standard and retains valuable landscape features, then the capital invested in undertakings of the above kind can be expected to bring a measurable economic effect.

Figure 2

*Relationship between rural and urban areas*



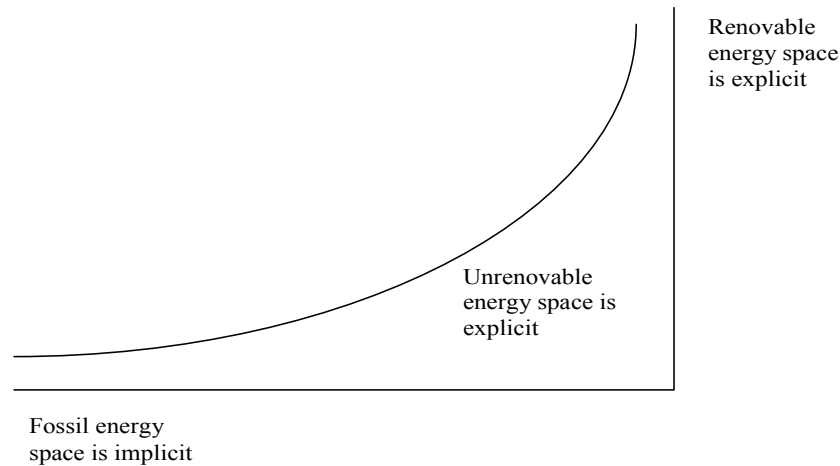
Source: Author's own construction.

### Energy supply

A further conditioning arising out of the environment's potential and capable of influencing the structure of geographical space and the landscape concerns the energy potential it is associated with. That potential is expressed in terms of the non-renewable and renewable energetic raw materials. It is very much upon the breakdown to the use of the different resources and the ways in which they are won that the quality of the environment and attractiveness of the landscape depend to a very great degree. Today, for example, there are many local communities asking themselves about the aesthetic environmental costs of wind farms or the creation of other new spatial structures (Niecikowski – Kistowski, 2008). However, the most important issue from the point of view of the functioning of the environment is the breakdown for the use of the different fuels, these ranging across from the fossil fuels to the renewable energy sources (Figure 3).

The process by which energy-consumption structures evolve displays clear periods of stabilisation and marked variability. The latter are induced by such external determinants as rising demand, the discovery of new energy sources and concern for the environment.

Figure 3

*Transition of energy space – phases and stability*

Source: Authors own construction.

Energy demand is determined by factors such as economic activity, weather conditions and behavioural patterns among consumers. In order for the use made of different sources of energy to be optimised, energy and environmental models are applied, their task being to obtain the maximum profit in economic terms, while minimising negative impacts for the environment. As R. Domański (2006) noted, energy can be embodied as a common denominator for both ecological and economic formulae. Many countries' interest in using these models to generate socio-economic policy only gained in significance in the wake of the energy crisis of the 1970s. At that time, the public was made aware of the real prospect that non-renewable energy resources might run out, while the increase in energy prices was seen to be an unpredictable one. In turn, there was a defining and scientific demonstration of the negative impacts on the environment associated with the burning of fossil fuels, especially the solid fuels. Thus people started to try and optimize the use of energy sources, and to lower the rate of increase in energy consumption vis-à-vis the rate of growth in GDP. Thus, for example, in the EU-15, the years 1995 – 2001 brought a 17% increase in GDP, in association with just a 5% rise in energy consumption. In the years just prior to that it had still been the case that energy consumption had to grow faster than the rate at which GDP was increasing (*Environmental Signals*, 2004). Unfortunately, however, the energy-intensiveness to be noted in the new Member States differed markedly from that among the old Fifteen. The lowest indicator for energy-intensiveness in 2006 (as expressed in terms

of TOE/GDP) was characteristic of Denmark (c. 100). At the same time, the average calculated for the Fifteen was of c. 200 points. In comparison, Poland's figure is of more than 450, while that for the 10 new Member States acceding in 2004 taken together was of more than 700 points.

Following its 2007 enlargement to 27 countries, the EU with its 500M+ inhabitants was making use of around 18% of the world's energy. The dominant fuel in EU countries is oil (40% of total consumption), though the fastest-growing source is natural gas, for which the EU now accounts for over 25% of all consumption. Natural gas usage has increased through both higher overall demand for energy and a decline in the relative role played by coal consumption from 20% in 1991 to 16% in 2007 (*Austvik, 2007; Eurostat, 2008*) Nuclear energy output has been quite stable, accounting for around 13% of total energy consumption. HEP offers a further 4%, while renewable sources taken together (wind, geothermal, solar, biofuels, etc.) account for just 2%. What this shows is that the fossil fuels (oil, gas and coal) continue to account for almost 83% of the energy consumed in the EU countries. This in turn necessitates a further, far-reaching transformation in the use made of the different raw materials, in order that an optimal solution from the points of both the environment and the economy can be arrived at. Obviously, changes of this kind will bring attendant evolution of the spatial structure, as well as the creation of new patterns in line with optimisation of the use made of the environment's potential, including as regards renewables.

### **Ecosystems services**

As human populations grow, so do the resource demands imposed on ecosystems, and the impacts of our global footprint. Our human use of natural resources began from the moment of our appearance on Earth and has never stopped growing since. However, the increase in the level of anthropopressure being imposed upon the environment is not linear in nature, but goes through stages of stabilisation, as well as of very much reintensified pressure. An example of a period of very strong anthropopressure on the environment was of course provided by the Industrial Revolution. The 20<sup>th</sup> century also witnessed humanity's very severe exertion of pressure on the environment, this reflecting the geometric increase in the human population and the attendant needs to produce food, to obtain sources of energy and to find space to meet the needs of the settlement network. The pressure in question transformed ecosystems greatly, though it also made people aware that the latter of themselves possess a certain potential from which benefit can be drawn.

Specifically, humankind benefits from a multitude of resources and processes that are supplied by natural ecosystems. Collectively, these benefits are known as ecosystem services, and include products like clean drinking water and processes

like the decomposition of wastes. Ecosystem services are distinct from other ecosystem products and functions because there is human demand for these natural assets. Services can be subdivided into five categories:

- provisioning, such as the production of food and water;
- regulating, such as the control of climate and disease;
- supporting, such as nutrient cycles and crop pollination;
- cultural, such as spiritual and recreational benefits;
- preserving which includes guarding against uncertainty through the maintenance of diversity.

In considering the relationship between humankind and the environment in ever-greater detail, some authors (like *Holdren – Ehrlich, 1974; Ehrlich, P. R. – Ehrlich A. H., 1981*) show how ecosystem services support life through:

- the purification of air and water,
- the mitigation of droughts and floods,
- the generation and preservation of soils and renewal of their fertility,
- the detoxification and decomposition of wastes,
- the pollination of crops and natural vegetation,
- the dispersal of seeds,
- the cycling and movement of nutrients,
- the control of the vast majority of potential agricultural pests,
- the maintenance of biodiversity,
- the protection of shores from erosion by waves,
- protection from the sun's harmful ultraviolet rays,
- the partial stabilization of climate,
- the moderation of weather extremes and their impacts,
- the provision of aesthetic beauty and intellectual stimulation uplifting of the human spirit.

Consequently, society is coming to realize, not only that ecosystem services are threatened and limited, but also that there is an urgent need to evaluate trade-offs between immediate and long-term human needs. This is, for example, true of the need to estimate the pedosphere's capacity to supply enough food in the form of crops for the inhabitants of given regions of our planet (*Myers, 1983; Prescott-Allen, R. – Prescott-Allen C., 1990*). To help inform decision-makers, economic value is increasingly being attached to a wide range of ecosystem services, this often being based on the cost of replacement by anthropogenically-driven alternatives. The ongoing challenge of ascribing economic value to nature is prompting transdisciplinary shifts in how we recognize and manage the environment, in social responsibility, in business opportunities, and ultimately in our future as a species.

## Conclusions

The presentation here of selected issues associated with the shaping of interrelationships between the natural environment, society, the economy and culture, and capable of conditioning spatial development, makes it very clear that the system of the natural environment is a fully-fledged player in the shaping of new spatial patterns and in the setting of directions to spatial development and regional economic development. It has now come to be important for the economic aspect to planning and accounting *vis-à-vis* spatial policy to take account of the potential of the natural environment, as well as optimisation of the latter's use. This is particularly the case when it comes to functional conceptualisations of socio-economic systems. Society's demographic development plus growing pressure on the environment resulting in ever greater fragmentation plus impairment of natural resistance to external factors ensure that there is an increasing demand for areas in which the landscape has only been transformed to a limited extent. In line with the increase in the number of inhabitants, the exhaustion of mineral resources and the reduction in the area of arable land, we are witnessing increases, not only in the prices of non-renewable mineral resources, but also in the prices of food – especially organic food (i.e. that produced traditionally, without the agents intensifying production). In this context, the environment is emerging as one of the basic determinants shaping the structure and development of space.

## References

- Austvik, O. 2007: Energy challenges for Europe. *Structural Change in Europe*. 5. pp. 52–54.
- Berbeka, K. 2005: *Konsekwencje wdrażania dyrektyw ekologicznych UE dla konsumpcji gospodarstw domowych w Polsce* [Consequences of implementation of EU directives for consumptions in households]. Kraków, Wyd. AE w Krakowie.
- Degórska, B. – Degórski, M. 2003: The environmental dimension of European space according to the concept of trajectory. *Europa*. 8. pp. 37–44.
- Degórski, M. 2003: Some aspects of multifunctional landscape character in the interdisciplinary environmental study. In: Helming, K. – Wiggering, H. (eds.): *Sustainable development of Multifunctional Landscapes*. Berlin, Heidelberg, New York, Springer-Verlag. pp. 53–65.
- Degórski, M. 2005: Środowisko przyrodnicze a środowisko geograficzne [Natural environment versus geographical environment]. In: Maik, W. – K. Rembowska, K. – Suliborski, A. (eds.): *Geografia jako nauka o przestrzeni, środowisku i krajobrazie. Podstawowe Idee i Koncepcje w Geografii*. 1. pp. 116–129.
- Degórski, M. 2006: Podstawy teoretyczne systemowego ujęcia badań środowiska przyrodniczego i geograficznego oraz ich znaczenie dla rozwiązań aplikacyjnych [Theoretical assumption of system's understanding of environment study and its meaning for practical solutions]. *Problemy Ekologii Krajobrazu*. 1. pp. 37–48.
- Degórski, M. 2007: Environmental conditions as a driving force of regional development in Poland, In: Kovács, A. D. (ed.): *Regionality and/or Locality. Discussion Papers Special*. Pécs, Center for Regional Studies of Hungarian Academy of Sciences. pp. 67–80.

- Degórski, M. 2008a: Environmental dimension of transboundary spatial development – driving forces in the ecological regionalism. In: M. Leibenath, – E. Korcelli-Olejniczak, – R. Knippschild, (eds.), *Cross-border Governance and Sustainable Spatial Development, Mind the Gaps!* Berlin, Heidelberg, New York, Central and Eastern European Development Studies, Springer-Verlag pp. 161–173.
- Degórski, M. 2008b: Polityka ekologiczna w zarządzaniu regionem (Ecological policy in regional management). In: Stryjakiewicz, T., Czyż, T. (eds.): *O nowy kształt badań regionalnych w geografii i gospodarce przestrzennej. Biuletyn KPZK, 237*. Polska Akademia Nauk, 237, pp. 50–72.
- Domański, R. 2006: *Gospodarka przestrzenna, podstawy teoretyczne* [Spatial management, theoretical bases]. Warszawa, PWN.
- Domański, R. 2008: Przyczynek do modelowania rozwoju zrównoważonego w długim okresie, [Contribution to the modeling of sustainable development in long term]. In: Stryjakiewicz, T. – Czyż, T. (eds.): *O nowy kształt badań regionalnych w geografii i gospodarce przestrzennej, Biuletyn KPZK, 237*. Polska Akademia Nauk. 237. pp. 203–224.
- Dupont, R. – Baxter T. – Theodore L. 1998: *Environmental management, problems and solutions*. Boca Raton, Boston, London, New York, Washington DC, Lewis Publishers.
- Ehrlich, P. R. – Ehrlich, A. H. 1981: *Extinction*, Ballantine, New York. Environmental Signals, 2004: *A European Environment Agency update on selected issue*. Copenhagen, European Environment Agency.
- Eurostat 2008: *Eurostat Yearbook*. Brussels, European Commission.
- Glasson, J. 2000: Socio-economic impacts. In: *Socio-economic impact assessment (SIA)*. London, New York, Spon Press, pp. 20–41.
- Holdren, J. P. – Ehrlich P. R. 1974: Human population and the global environment. *American Scientist*. 62. pp. 282–292.
- Łaguna, T. 2004: Ekonomiczne podstawy zarządzania środowiskiem i zasobami naturalnymi [Economical bases for the environmental management and natural resources]. *Ekonomiczne i Ekologiczne Aspekty Gospodarki Przestrzennej*. Olsztyn.
- Meyer, B. – Degórski, M. 2007: Integration of multifunctional goals into land use – the planning perspective. In: Mander, U. – Wiggering, H. – Helming, K. (eds.): *Multifunctional land use, meeting future demands for landscape goods and services*. Berlin, Heidelberg, New York, Springer, pp. 153–166.
- Morris, P. – Therivel, R. 2000: *Methods of environmental impact assessment*. London, New York, Spon Press.
- Murphy, A. 2006: Enhancing Geography's Role in Public Debate. *Annals of the Association of American Geographers*. 1. pp. 1–13.
- Myers, N. 1997: The worlds forests and their ecosystem services. In: Daily, G. (ed.): *Nature's Services: Societal Dependence on Natural Ecosystems*. Washington DC, Island Press, pp. 215–235.
- Myers, N. 1983: *Wealth of Wild Species*. Boulder, CO, Westview Press.
- Prescott-Allen, R. – Prescott-Allen C. 1990: How many plants feed the world? *Conservation Biology* 4. pp. 365–374.
- Schaltegger, S. – Figge, F. 1997: Environmental shareholder value, economic success with corporate environmental management. *Eco-Management and Auditing*. 7. pp. 29–42.
- Schaltegger, S. – Synnestvedt, T. 2002: The link between green and economic success: environmental management as the crucial trigger between environmental and economic performance. *Journal of Environmental Management*. 65. pp. 339–346.
- Walley, N. – Whitehead, R. 1994: It is not easy being green. *Harvard Business Review*. 72. p. 46–52.
- WCED, 1987: *Sustainable Development, Brundtland Report*. World Commission on Environment and Development.

# **THE REGIONAL STRUCTURE AND DECENTRALISATION OF SCIENCE IN CENTRAL AND EASTERN EUROPEAN COUNTRIES**

**GYULA HORVÁTH**

## **Introduction**

Europe's further development depends on the way in which growth factors are spread across its regions, and one reason for the lower level of competitiveness is major regional differences in R&D. Weak regional cohesion and an exaggerated spatial concentration of modern regional development factors have a clearly negative effect on European competitiveness today. Activities with high value added are concentrated within the London–Paris–Milan–Berlin–Amsterdam pentagon, but the distribution of innovative industries differs even in the developed countries. The role of national core areas is vital to R&D capacity, high-technology industries and to developed services – but, again, the situation is very similar in the Central and Eastern European countries, where the level of concentration, in fact, increased after the change of regime.

The aim of this paper is to identify regional differences in the R&D structure of six large and medium-sized EU member states in Eastern and Central Europe. The basic hypothesis is that exaggerated intellectual polarisation hampers the strengthening of regional cohesion and that R&D must be given a priority role in economic development strategies.

## **The organisation of scientific institutions in Central and Eastern Europe, 1950–1990**

The different levels of development of the two sides of Europe are particularly evident in relation to science, and the roots of this reach back several centuries. The university foundation period of the Middle Ages, in fact, had its influence on only a very small part of Eastern Europe. In this region were founded four universities (which play a prominent role until today). These are the universities of Prague (1347), Krakow (1364), Vienna (1365) and Pécs (1367). Higher education appeared in other parts of Europe only several centuries later. For example, Bulgaria's first university was founded in Sofia in 1888 (after many years of Turkish



rule) but newer universities in the country appeared only after 1970. The first universities of Romania were founded in Bucharest in the 1850s and in Iași (Moldavia) in the 1860s. In some major cities a university network – primarily in Transylvania – developed between the two World Wars, and in the communist era many new universities were founded in major cities or industrial centres, including the underdeveloped parts of the country.

Developments in many Eastern European countries were relatively uniform. The basis of higher education and research appeared only after the Great War and the number of institutions was very small. Only four universities were operating in Hungary between the two World Wars, the number of students being 14,000 out of a population of 9 million in 1938.

Due to regional development issues, and from the viewpoint of sectoral education, few adjustments were made after the Second World War. The University of Heavy Industry in Miskolc and the University of the Chemical Industry in Veszprém were founded in 1949, at the beginning of the communist era.

The foundation of national academies of sciences was crucial for the scientific systems of the countries of Eastern Europe, and all had organised their academies by the beginning of the 1950s. The academies were not only the coordinating institutions for science in their respective country, but had an extensive research network, typically embracing some 40–70 institutions. The consequence of centralised government was that these academic research institutions were, with few exceptions, organised in the capital cities.

The modest changes in over-centralisation introduced in some countries have some influence in the deconcentration of the institutions. For example, the government in Hungary issued a decree reforming science policy within the economic reform programme started in 1968, and a communist party document issued in 1969 also asserted the need for science to be decentralised. The decree declared the negative aspects of the excessive concentration of research in Budapest and proposed to decrease the differences between the disciplines and to develop the social sciences. The enactment of the decree, however, was only partially successful. At the beginning of the 1970s science developed noticeably in the regional centres, and the Hungarian Academy of Sciences organised a Biological Research Centre in Szeged, which was the most highly developed in Central Europe. The Faculty of Business and Economics began to operate at the University of Pécs – only the second institution of education in economics in the country – and the academic research institutions of Pécs acquired a new profile – that of regional science. However, the resettlement of research institutions or HE institution from Budapest was not successful. A decision had been made to move the Faculty of Veterinary Science from Budapest to Debrecen in the east of Hungary – the centre of Hungarian agriculture, but, due to obdurate opposition (for personal interests) by the leaders of the university, the plan failed.

Although the communist party's policy for science had different characteristics in individual countries – as in other spheres of the economy and society, we can detect some characteristics common to all:

1. Science enjoyed a privileged position in the socialist era – a typical feature of the Soviet model. The favoured groups of people in the sciences (academicians, principal researchers) received higher incomes and enjoyed a variety of social benefits.

2. Intensive state intervention and government control were accompanied by continuous and adequate budgetary resources, although these varied in the different branches of science. Of the national income, 2– per cent was spent on R&D in the Eastern European countries in the 1970–80s. This high rate was due in part to research in the armaments industry, and a further explanation is that many industrial products (in telecommunications and computer technology) were produced on the basis of domestic research because of the boycott on exports of Western European technology.

3. The state established research institutes in technology and the natural sciences in the 1950s, a period of extensive development and promotion of science, but the social sciences remained in an inferior position for decades, due to the dominance of Marxist ideology. The new branches of science (sociology, political and regional sciences) developed relatively late, and they were only embedded in the HE system with difficulty. The ratio of researchers employed in the social sciences amounted to less than one-fifth of that in several countries.

4. Academic research networks, sectoral research institutes controlled by the ministries and corporate research units were dominant in the institutional structure of research. For example, in Hungary in 1985, corporate research units absorbed 48 per cent of all R&D expenditure. Universities were primarily institutions of education and research expenditure within universities was marginal. In Hungary, in 1985, HE institutions accounted for no more than 12 per cent.

### **The impact of the change of regime on the regional structure of Eastern and Central European R&D**

The change of regime at the beginning of the 1990s produced a significant restructuring of the scientific potential of Eastern and Central European countries. One characteristic common to all was a considerable reduction in scientific capacity. Two fields of research capacity shrank dramatically, one of these being the sectoral research institute network. The majority of research institutes funded by national bodies (such as ministries) were closed and the number of employees in academic research institutes declined equally dramatically. As a direct conse-

quence, the percentage of GDP allocated to R&D was greatly reduced – to one-third or even one-fifth. In *Table 1* we show this in terms of GERD/GDP (Gross expenditure on research and development as a percentage of Gross domestic product).

After the change of regime R&D underwent a substantial restructuring. The re-organisation of the HE system was the starting-point of a range of positive changes. In Central and Eastern European countries the number of undergraduates doubled or tripled, new colleges and universities were established and R&D was given an important role. One part of the major, state-owned research institutes closed (apart from the academic networks) and the other part was privatised. Certain groups of companies started to increase their R&D activity, including several multinationals settled in the region. The structure of expenditure changed perceptibly, with spending on state- or community-financed research continuously decreasing and that on corporate research rising.

Table 1

*Changes in R&D main indicators in Eastern and Central Europe, 1980–2005*

Name	Bulgaria		Czechoslovakia		Poland		Hungary		Romania	
	1980	2005	1980	2005	1980	2005	1980	2005	1980	2005
GERD/GDP	2.5	0.5	3.9	1.4 <sup>1</sup> 0.5 <sup>2</sup>	2.2	0.6	3.2	1.0	No data	0.4
Number of researchers, '000s	31.6	21.6	39.6	37.5 <sup>1</sup> 17.5 <sup>2</sup>	96.3	55.0	31.4	23.0	71.1	33.4

*Note:* <sup>1</sup> Czech Republic, <sup>2</sup> Slovakia.

*Source:* Author's compilation based on national statistical database 1980, and Europe in Figures. Eurostat Yearbook 2008.

There are, however, considerable differences between the countries of Central and Eastern Europe. In the Czech Republic, expenditure in business research locations accounts for nearly two third of all GERD – data similar to the EU-27 average. The ratio of company-financed research is the lowest in Bulgaria where government finance is still of great importance. In two countries, Hungary and Poland, the influence of HE institutions in financing research exceeds the EU average, and in all countries government-supported research institutes have a notably higher share of GERD than the EU average due to the maintenance of a network of Academies of Sciences (*Table 2*).

Table 2

*Distribution of GERD by sectors, 2005, per cent*

Name	Business sector	Budgetary institutions	Higher education
Bulgaria	22.2	67.3	10.5
Czech Republic	64.7	19.0	16.3
Hungary	45.0	28.6	26.4
Poland	31.6	36.8	31.6
Romania	48.0	34.1	17.9
Slovakia	50.0	30.0	20.0
EU-27	64.0	13.4	22.6

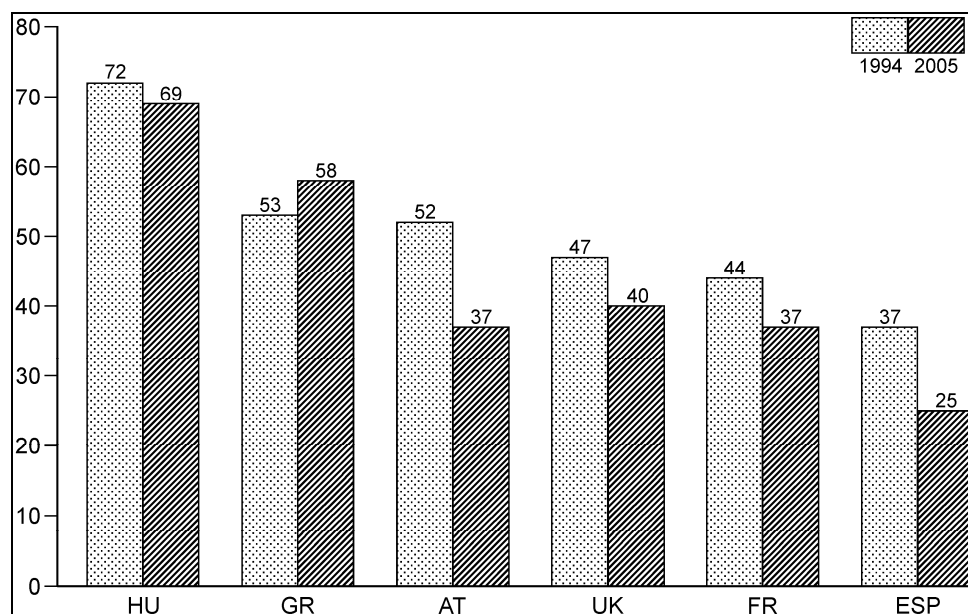
Sources: Europe in Figures. Eurostat Yearbook, 2008; Statistical Yearbook Romania, 2007.

The sectoral transformation of research institutions was followed in none of the countries by a positive change in regional structure, and it remained typical of the spatial structure of research centres that they were still mainly concentrated in the capitals. In the 1990s, however, the spatial structure of R&D changed in several countries. The central or core areas declined in importance, and the major results of decentralisation are evident in the regionalised and federalised countries. The relative weight of Vienna in Austria decreased by 15 percentage points and, in Spain, that of Madrid by 12. There was a slight decrease – or even no movement at all – in the unitary states of Hungary and Greece. In the latter, the Attica region even increased its share in the GERD of the country (*Figure 1*).

In Central and Eastern Europe the capitals and metropolitan regions are the bastions of research and science, the weight of the metropolitan region being greatest in Bulgaria. Four-fifths of the country's research potential is concentrated in Sofia and its vicinity, and two-thirds of Hungary's GERD is found in the Central Hungarian (NUTS2) region which consists of Budapest and Pest county. The research capacities of the Czech Republic, Poland, and Slovakia reveal a slightly more balanced picture – the metropolitan proportion in these countries being under 50 per cent (*Table 3*).

Most of the important R&D indicators in the core areas of CEE countries are below the EU average, and in no more than 2 (Czech) regions of the 49 NUTS2 regions of the 6 do CEE countries exceed the EU average for the GERD/GDP ratio. In 8 regions the GERD/GDP level is between 1.0 and 1.9 per cent, and in 39 the level does not reach 1 per cent. In 20 regions it is even below 0.3 per cent (*Figure 2*).

Figure 1

*Share of the core areas in GERD, 1994–2005, per cent*

Source: Author, based on Europe in Figures. Eurostat Yearbook, 2003, 2008.

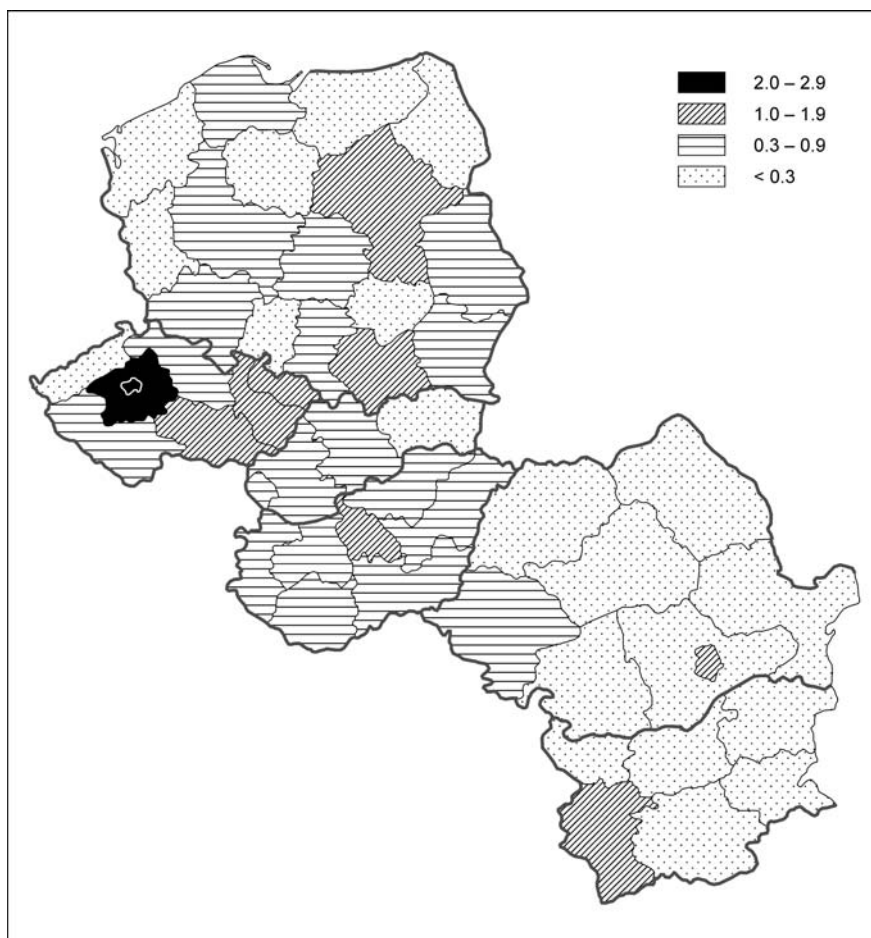
Table 3

*Weight of capital regions in national R&D*

Country	Region	Percentage share in R&D expenditure	Percentage share in R&D employees
Bulgaria	South-west	83.4	71.6
Czech Republic	Praha	37.5	40.4
Hungary	Central Hungary	68.8	63.4
Poland	Mazowieckie	42.5	32.6
Romania	București-Ilfov	59.3	60.9
Slovakia	Bratislavský kraj	47.6	49.8

Source: Compiled by the author on the basis of <http://epp.eurostat.ec.europa.eu>.

Figure 2

*GERD as per cent of GDP in CEE regions, 2005*

Source: Compiled and edited by the author based on <http://epp.eurostat.ec.europa.eu>.

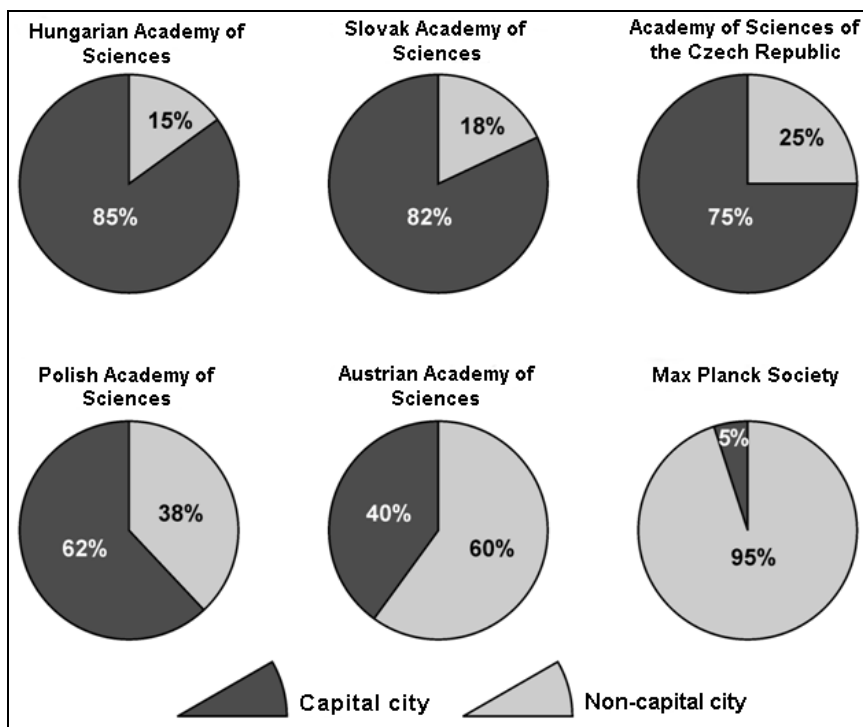
If we look at the regional spread of R&D activity, we would draw a similar conclusion. In most countries the most highly concentrated R&D activity is corporate-financed, and foreign joint ventures' target locations for establishing R&D units in CEECs were almost solely capital cities.

The location of the academic institutions, the leading basic researchers, is no more positive. Most of the institutes of academies of sciences are located in national capitals and no more than 7 (19 per cent) of the 37 research institutes of the Hungarian Academy of Sciences operate outside Budapest. This means that only

15 per cent of the Academy's employees, some 4,000 in number, work in these institutes. By contrast, thirty-eight percent of the Polish Academy's employees work in institutes outside Warsaw. It is important to emphasise that, in federal states, the spread of Academy institutions is very different from the above. There are a remarkable number of research centres in the federal states of Austria and Germany (Figure 3).

Figure 3

*Employers of state institutes of science outside capital city  
in specific European countries, 2007*



Source: Compiled and edited by the author.

Great expectations followed the change of regime in terms of the modernisation of the regional structure of higher education. In almost every country the total number of students tripled or quadrupled, although this increase was spatially unbalanced. The dynamic of HE in the capital is as strong as the increase in the number of students outside the capital. The developments were discursive in that no regional policy concepts were applied and, moreover, spatial development planning

was undeveloped. The unfavourable spatial structure of HE was preserved, with some 30–40 per cent of students still concentrated in the capital (*Table 4*). A further characteristic of rapid change was the significant increase in the incidence of the social sciences in the HE system of most countries – important in terms of establishing the economic bases of regional development. The weight of social sciences in HE is higher in CEE countries than in other member states of the EU, but at the same time the importance of natural sciences and technology in HE is lower (*Table 5*).

Table 4

*The distribution of students in HE in central areas, 2006*

Country	Number of students, '000s	As national per cent
Bulgaria	114	47.1
Czech Republic	125	37.0
Poland	445	20.7
Hungary	187	42.6
Romania	294	35.2
Slovakia	65	32.8

*Source:* Compiled by the author based on <http://epp.eurostat.ec.europa.eu> data.

Table 5

*Students in HE by field, 2006, per cent*

Country	Students, '000s	Social sciences <sup>1</sup>	Technology and natural sciences <sup>2</sup>	Other fields <sup>3</sup>
Bulgaria	243	43.5	35.2	21.3
Czech Republic	337	27.6	38.7	33.7
Poland	2,145	40.9	30.1	29.0
Hungary	439	41.5	28.6	29.9
Romania	835	50.0	31.5	18.5
Slovakia	198	28.3	43.9	28.3
Austria	253	34.9	35.1	30.0
Finland	309	22.4	52.8	24.8
Netherlands	572	38.0	32.1	29.9
Ireland	186	23.1	36.0	40.9

*Note:* <sup>1</sup>Business, behaviour, law and other social sciences; <sup>2</sup>Biological and physical natural sciences;

<sup>3</sup>Teacher training, liberal arts, personal and security services, environmental protection.

*Source:* Compiled by the author based on <http://epp.eurostat.ec.europa.eu> data.



In Hungary, at the beginning of the 1990s faculties of social sciences were founded in many cities by the former political elite. The establishment of university faculties or colleges in regional public administration centres was a result of political change, and the, now unused, official buildings and education centres of the communist party offered an adequate infrastructure for HE. The Ministry of Education accepted implicitly the relatively cheap and extensive developments in social science education. As a result of the demand for specialists required to work in the market economy, the growth in numbers in economics education can be understood.

The slight decrease in the regional distribution of R&D was generated by the fact that research and development was given an important role in university functions. In the analysis of the R&D investment structure, we have already mentioned the different distribution of HE in different CEE countries, and we saw that in Poland and Hungary HE represents a higher weight than the EU average in terms of R&D expenditure. There is no other type of research organisation outside higher education to be seen in any CEE country: the role of corporate research is well-nigh invisible and the number of regional development planning institutions and research centres of many West European countries can rarely be found.

### Conclusions

If we examine the spatial location of R&D activity, which should be one of the factors supporting the dynamic of European regional development, we can see that the change of regime and the transition have had the effect of preserving the “status quo” in the new member-states in Central and Eastern Europe. Major regional inequalities are still evident in the regional structure of developed innovation institutions, and the core areas and capital cities still have their privileged position. The regional and structural policies based on EU norms have not stimulated the development of R&D in the new member states, as the operational programmes for 2007–2013 demonstrate. There is no Central or Eastern European country with a regional or competitiveness-related operational programme targeting a comprehensive transformation of human resource development in respect of research.

Changes in the factors influencing regional development require the regional policy system of objectives, together with the related instruments and institutions, to be transformed. The long-term trends of European spatial development require the widest range of institutionalised forms of decentralisation to be established in the countries of Europe in the face of their different traditions. The new, Central and Eastern European member states can only meet EU cohesion requirements with the help of decentralised institutions. This is not only a public administration issue, but also a prerequisite for the success of R&D in helping to improve com-

petitiveness. If regionalism progresses, it can bring about the modernisation of regional structures and the need for multi-polar regional development may change the hierarchies of power in those countries still in transition quite profoundly. The sub-national level of the power structure, the region, is a territorial entity which supports the sustainable development of the economy and the modernisation of the spatial structure – with its own financial resources and having at its disposal an autonomous development policy based upon local governmental rights. The regions are becoming the stage for innovative development, and the degree of regional-level embeddedness among the fundamental institutions of innovation output is becoming stronger.

The decentralisation of science and R&D has a number of positive effects on the improvement of the regions. The formation of research-intensive sectors increases the number of quality jobs and the business development effects of setting up spin-off companies are clearly evident. Innovative business develops the region's export capacity and helps it integrate into the European and international research area. Companies which demand or rely on research contribute to the re-industrialisation of the region and to the spread of modern services. All of these improve the income-generating ability of the regions and contribute to the enhancement of territorial cohesion. The Lisbon criteria cannot be met without decentralisation.

# REGIONAL PLANNING AND CO-OPERATION IN PRACTICE IN THE DANUBE–CRIS–MAROS–TISA EUROREGION

GÁBOR NAGY

## Main characteristics of the border region

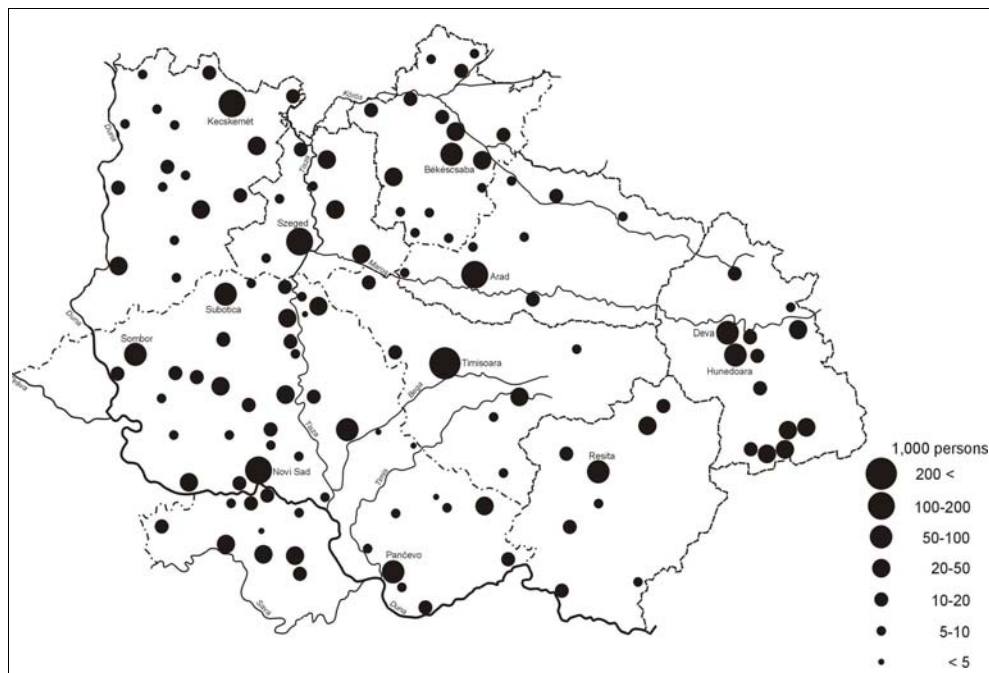
The historically defined meso-region of so-called Délvidék (the area among and along the four main rivers: Duna-Danube, Körös-Cris, Maros-Mures, Tisza-Tisa) formed a specific border region of Europe. Two of the NUTS2 regions of the DKMT Euroregion belongs to countries which are members of the EU (from 2004 – Hungary, from 2007 – Romania) and one is inside the Schengen-system (Dél-Alföld from Hungary, after 2007). The Hungarian part of the Euroregion seems a periphery inside its country with less developed areas and structural crisis (agriculture and wider agri-business, textile industries etc.) (Nagy – Kugler, 2004). The West region (Romania) had experienced one of the most impressive paths of economic development and restructuring inside Romania, thanks to the growth poles of Timișoara and Arad as the bases of new wave of industrialisation. The Vojvodina [Vajdaság] is one of the most developed regions of the remaining Serbia, but after the five civic wars and the economic blockade, the whole country and even Vojvodina became one of the poorest territories in Europe. After the agony of Yugoslavia (the declaration and *de jure* independence of Montenegro – Crna Gora and Kosovo in 2006 and 2007) the Serbian integration into European political and economic space fastened (Csatári – Timár, 2002).

This border region is one of the most important areas of the EU, with a specific role in Trans-European and Pan-European corridors, and as a crucial area in the modernisation of the West-Balkans. There are similarities and differences compared to the Austrian, Slovakian, Hungarian tri-border region. In that case, the moderately developed region of Austria (Burgenland) tried to find common interests with the well developed regions of Hungary (Nyugat-Dunántúl – West Transdanubia) and Slovakia (region around Bratislava, the capital city). The difference is rooted in the specific urban structure (Figure 1) of Délvidék, where no dominant centres exist *vis-à-vis* the role of Wien and even Bratislava in the West Pannonian Euroregion (Nárai – Rechnitzer, 1999). In the DKMT Euroregion a more balanced city network exists, without national capitals but with NUTS2 and NUTS3 level centres. The other difference is rooted in the possibility of crossing borders. From Hungary and Slovakia to Austria, a person only had one crossing per 3 years before

1985 and 1989, because of the ‘Cold War’ opposition of East and West. In the Southern border region from Hungary to the other two countries, there existed a system of border zone movements after 1975, as a result of the vigorous *Ostpolitik* of the Social-Democratic Party in Germany.

Figure 1

*The balanced urban structure of DKMT Euroregion*



Source: Strategic Plan and Operative Programmes of DKMT Euroregion, 2005. Békéscsaba–Timișoara–Subotica.

The specific feature of the Délvidék region is that the flow of persons, goods and services, and after the transition, capital was fluid under the rule of Communism<sup>1</sup> and the transition period, as well. The level of personal and economic connections was relative high, particularly between Yugoslavia and Hungary after 1975, when an agreement made cross-border movements easier.

This kind of co-operation was the basis of creating an organisational background (DKMT Euroregion) in 1997, with the participation of 4 Romanian counties (Timiș, Arad, Hunedoara, Caraș-Severin), 3 Hungarian *megye* (Bács-Kiskun,

<sup>1</sup>Except two, relative short periods between 1948–1955, when Yugoslavia was the declared enemy of the Soviet bloc, and 1999–2000, when NATO troops bombed Vojvodina in the Kosovo War.

Békés, Csongrád – one of 4 units had to leave it because of the NUTS2 reform in 1999) and Vojvodina, as an autonomous part of Serbia. The first wave of collaboration (1997–1999) was broken by the Kosovo War, but after that process, a new level of common thinking emerged in parallel with increasing resources for cross-border development (*Nagy – Kugler, 2004; Nagy in Timár, 2007*).

### **The theories and aims of regional planning**

The basic goal of regional planning in all the three regions of the DKMT Euroregion is to channel as much development funds into local and regional projects as possible. The ‘success’ in regional development seems to use all the resources coming from national and international levels (particularly from the EU). From this point of view, it is reasonable to form a regional policy framework, administrative system etc., fits for the regulations and recommendations of the European Union. In the earlier steps of improving regional political capacity, all the actors tried to find a way to identify the formal parts of EU regulations and use them inside the ‘traditional’ national channels of regional development. After a short period, the end of this approach became clear, so the revised versions of the legal background, organisational structures and monitoring systems turned more ‘European’. The risk of low-level adaptability is stopping some sources of development from the EU budget (see Bulgaria in 2008), the elimination of possibility to apply for Community programmes (*Rechnitzer – Lados, 2004*).

The planning process is very sensitive to the changing priorities of EU regional policies, mirroring the ESDP, Lisbon Agenda, Gothenburg Strategy, Territorial Agenda and Leipzig Charter. The ‘first generation’ of regional planning documents concentrated on alleviating regional inequalities,<sup>2</sup> rather than global competitiveness and ecological aspects. In the ‘new generation’ of documents, particularly after 2000, long-term competitiveness became the major goal of development and the role of development of ecological, architectural, cultural values was emerging (*Rechnitzer, 1998*). The meaning of the term ‘cohesion’ became richer; instead of eliminating regional differences, cohesion concentrates on the particular combination of local/regional resources as a basis of faster development with broader connections to global processes.

It is important to see that all the three national regional policies (Hungarian after 1996, Romanian after 1998, Serbian after 2000) strengthened in a phase, when ‘the Europe of Regions’ concept had lost its swing (*Benedek, 2006*). While these countries concentrated on establishing the frame of regional administrative capacities and organisations, the most developed parts of Europe entered the ‘renais-

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<sup>2</sup> As a reaction to the highly increased regional imbalances after the change of regime in the 1990s.

sance' of functional urban areas. FUA's were defined as the key actors of innovative capacity, knowledge transfer and global competitiveness.

The system of Hungarian regional planning divided the planning documents into two parts: one is regional physical planning, and the other group contains the regional concepts, strategies, operative programmes and action plans. This division results in a disharmony among planning documents. The lack of coordination among sectoral and regional planning is the second weak point of the system. The third problem is rooted in the missing harmonisation of different levels of planning documents (local – LAU1 and 2; regional NUTS3 and 2, and national – NUTS0).

There are two different theories of regional planning inside and around the EU. The 'bottom-up' method uses all the documents in the lower administrative levels to outline the regional development concept, or strategy. The condition of a successful planning process is that all the local and regional plans had to contain a wide-range perspective in all the examined areas and strategic priorities. The existing practice shows that the planning process is more 'autarchic' rather than open to outside actors. In this case the aggregation process of regional planning is hardly working. The major advantage of a bottom-up system is the consensual, participatory planning, all the priorities and programming based on the real needs of local units (*Faragó, 2005*).

The other possible technique of regional planning is the 'top-down' method, based on national-level (regional and sectoral) documents. All the regional and local actors try to find their place and role in this system via the des-aggregation of higher level priorities and development strategies. It has some advantage, too, because of the high level of harmonisation and overlapping among planning documents. The major weak point of the system is the absence of local strengths and needs, the unique combination of local resources (*Rechnitzer, 1998*). This process makes the planning period more accurate and faster. The application process for development resources is simpler; the use of sources seems more effective. However, the lack of participatory planning may result in the less coordinated use of money, the lack of synergies among development actions, increasing competition among actors for resources. The technique of eliminating local needs is a limitation of consulting partners, and time limits for consensual planning (*Faragó, 2005; Benedek, 2006*).

The third major question in regional planning is choosing the philosophy of the process. In transitioning countries the dominant economic and even planning school became neo-liberalism, with minimising the role of planning in the first part of the 1990s and then using neo-liberal principles in the new planning phase (after 1995). Thanks to this change of paradigm, the major priority in regional plans was

competitiveness (whatever it means), but there are several problems with sustainability,<sup>3</sup> equal opportunities; not in the documents, but in practice.

### **The process of regional planning and the work of the DKMT Euroregion**

In this part of the paper we take a closer look at two parallel processes of regional planning, the Dél-Alföld (NUTS2) region and the DKMT Euroregion. It would be interesting to see the results of different backgrounds on the processes and the similarities in the documents and development steps.

Regional planning has begun in Hungary in 1996, after the acceptance of the 21/1996 Act on Regional Planning and Development. (To be more accurate, between 1994–1996 there were some planning experiments on different administrative levels, mainly in the Western part of Hungary, using the newly opened sources of INTERREG programmes, in parallel with the EU-accession of Austria.) This legal framework defined all the major areas, competencies and roles in regional development, and created a special source of development, financing only the regional programmes.

The newly founded Regional Development Agency (DARFÜ) and Council (DARFT) were set up in 1996, but the planning process had begun only in 1998, by formulating the long-term development concept, and later the mid-term strategic plan. After this phase of development, 14 operational programmes were made in 2000–2001, covering a certain part of the strategic priorities. The first wave of regional planning was over in 2001, when the actors (developers) and planners saw that resources for regional development were marginal, compared to the sectoral policies. The lack of development funds resulted in an increasingly passive behaviour in regional development. The realisation of documents could hardly begin in that period; synergy among the development steps was missing, large-scaled development was completely independent from regional sources.

The new wave of regional development planning emerged in 2003, thanks to the successful conclusion of the accession period (1997–2002), and new sources of regional development opened for the 2004–2006 period. Formulating the National Development Plan, the needs of local and regional actors were articulating through the PEA programme (Pre-Application Programme) in 2003, with a first circle selection of good ideas for regional development. EU-accession in 2004 initiated a new phase of the regional planning process, through half-time revision of Regional Development Concept and defining a new Strategic Plan in 2005. After the accep-

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<sup>3</sup>In Hungary, the planners sometimes use the term sustainability as ‘long-term, fast economic development’, without any hint of the original meaning of the phrase.

tance of the basic documents, the Regional Operative Programme (as a part of the new National Development Plan – ÚMFT) was created in 2006 for the new financing period of the EU to channel Structural Funds into regional development projects.

The DKMT Euroregion was founded in 1997 as a consultancy forum of the Presidents Council (Presidents of the member NUTS3 regions and Vojvodina). The Agency was missing, the formation of a stable Secretariat in Szeged was a longer process. However, the lack of organisation was the weak point of the structure however, several thematic workgroups were established with the external expertise of certain development areas from the business sector, civil society organisations and local governments. These groups of experts developed the strategic priorities of the major areas in 1998, but the realisation of plans was crashed by the Kosovo War in 1999–2000. After this period, the frame of the co-operation stabilised with the formation of Romanian NUTS2 regions, the operative network of the Secretariat and national co-ordinators in 2003. The first Development Concept was established in 1999 without any result and the changing situation involved the need for a new basic document. In 2005, the Development Concept, Strategy and Operative Programmes were accepted by the leaders. In this document, the planners used all the existing materials from the three member regions in different administrative levels and conducted parallel planning in three working groups with experts from Hungary, Romania and Serbia. Compared to the previous phase of planning, the new elements were: the wider harmonisation process in member regions, the more precise links to national and regional development plans, and the existence of possible funds for regional development.

The weak points of planning were similar in the two parallel processes: the lack of participatory planning. The collation phase of planning was limited, the circle of the partners was moderate, and there were no new actors in the scene between the two phases. The delegation system of Councils, the key actors and lobbying for development actions had great influence to define priorities and programmes. There was a major problem that needs were far stronger than opportunities because of the lack of resources and missing borders between regional and sectoral competencies (see ÚMFT). Policy was not effective enough in the division of funds; the major goal was to support a larger number of small projects all around the region instead of the ‘concentration’ of resources (see EU Regional Policy documents) in larger development programmes with measurable territorial effects.

In the second planning process of the DKMT Euroregion, the bottom-up lobby was weaker and the planners got a broader role in forming priorities and defining programmes. The major problem of the process was the lack of a unified legal background; Hungary was the member of the EU, Romania had applicant status and Serbia began the convergence process at that time. The missing own sources for regional development on the level of the Euroregion highlighted the need of



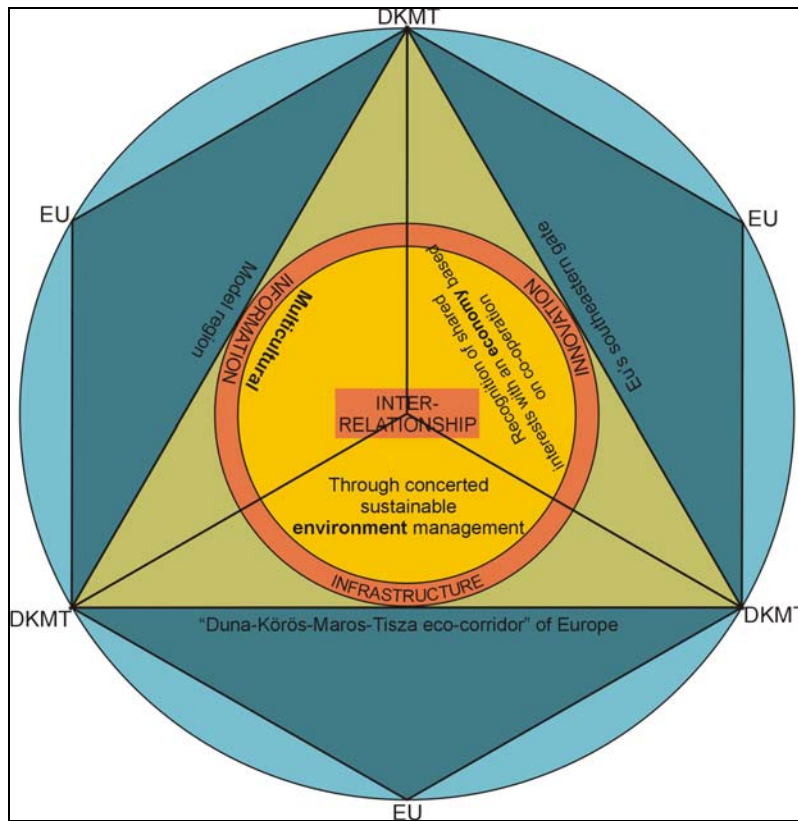
consensual development actions among the members. There will be an increasing problem to monitor the results of the actions, to point out the synergies, particularly the cross-border ones. We see this framework (Euroregion) as too large – there are existing paired counties, as well as town and city networks forming stronger alliances and becoming the engines of co-operation (Pálné, 1999; Illés, 2002).

The overall success of the planning process goes back to the common theoretical background, the similar problems and moderate differences among regions (Figure 2).

The external effects, particularly EU regulations, forced the actors into a more unified development framework, structure and technique, for the more effective use of development sources to solve the existing problems.

Figure 2

*The Strategic vision of the DKMT Euroregion*



Source: Strategic Plan and Operative Programmes of DKMT Euroregion, 2005. Békéscsaba–Timișoara–Subotica.

### Sources of regional planning and the new phase of regional development, after 2007

In the 2007–2013 financing period, Hungary has a chance to use 22.5 billion Euros for regional development. The Dél-Alföld region may apply for appr. 3 Billion Euros, including the large-scale programmes in sectoral chapters of ÚMFT. The decentralised part of the sources is appr. 800 million Euros, ten times higher than the sources were in the 2004–2006 financing period. Romania's share from Structural Funds accounts for appr. 32 billion Euros, while the West region will apply for 2–2,2 Billion. The level of INTERREG and CARDS (for Serbia) sources seems minimal. However, the planning, application and monitoring is decentralised into the NUTS2 level, and the competencies of regions are increasing in both Hungary and Romania, and the legal frame of Vojvodina has strengthened inside Serbia. While the regional level's importance is rising, the Euroregion's playground is rather limited. They have no own resources, no opportunity to apply for development sources, creating application for local agents, which means a high level of risk in the implementation of planning documents (Nagy in *Timár*, 2007).

### References

#### *Planning documents*

- Békés megye területfejlesztési koncepciója* [Regional development plan of Békés County]. MTA RKK ATI Békéscsabai Osztály, 1997.
- Csongrád megye területfejlesztési koncepciója* [Regional development plan of Csongrád County]. MTA RKK ATI Békéscsabai Osztály, 1998.
- A Dél-alföldi régió területfejlesztési koncepciója* [Regional development plan of Dél-Alföld Region]. MTA RKK ATI Békéscsabai Osztály, 1999.
- Csongrád megye területfejlesztési programja* [Strategic development plan of Csongrád County]. MTA RKK ATI Békéscsabai Osztály, 2001.
- A Dél-alföldi régió területfejlesztési koncepciója – felülvizsgálat* [Regional development plan of Dél-Alföld Region – Revised]. MTA RKK ATI, 2003.
- A Dél-alföldi régió területfejlesztési stratégiája – felülvizsgálat* [Strategic development plan of Dél-Alföld Region – Revised]. MTA RKK ATI, 2003.
- Csongrád megye területfejlesztési koncepciója – felülvizsgálat* [Regional development plan of Csongrád County – Revised]. MTA RKK ATI Békéscsabai Osztály, 2006.
- A Magyar–román határtérség fejlesztési stratégiája* [Regional development plan of Hungarian-Romanian border zone]. Budapest, Terra Kft. 2000.
- A DKMT eurorégió fejlesztési stratégiája* [Regional development plan of DKMT-Euroregion]. MTA RKK ATI Békéscsabai Osztály, 2005.
- Dél-Alföld fejlesztési regionális operatív program (ÚMFP 2007–2013) Egyeztetési változat* [Regional Operative Program for Dél-Alföld Region – 'New Hungary' Development Plan for 2007–2013 period]. Szeged, DARFÜ. 2006.
- Szeged Biopolisz Fejlesztési Pólus Program. Egyeztetési változat* [Szeged city – Biopolisz Development Programme]. Szeged, Biopolisz Kht. 2006.

- Új Magyarország Fejlesztési Terv. Foglalkoztatás és Növekedés – 2007–2013. MEH, NFÜ. Egyeztetési változat* [‘New Hungary’ Development Plan for 2007–2013 period – Employment and Economic Growth]. Budapest, A Magyar Köztársaság Kormánya 2006.
- Országos Fejlesztéspolitikai Konceptió (2007–2020)*. MEH, NFH. A Magyar Köztársaság Kormánya, Budapest, 2005. (National Concept for Development Policy – 2007–2020)
- Országos Területfejlesztési Konceptió* [National Concept for Regional Development]. Budapest, VÁTI Kht. 1997.
- Országos Területfejlesztési Konceptió* [National Concept for Regional Development – Revised version]. Budapest, VÁTI STI. 2005.
- Békéscsaba Városfejlesztési Konceptiója és Stratégiája*. MTA RKK ATI, Békéscsabai Osztály, 2004. (Békéscsaba Development Plan and Strategy)
- Békéscsabai Kistérség Fejlesztési Konceptiója és Programja* [Development Concept and Plan of Békéscsaba Small Region]. MTA RKK ATI, Békéscsabai Osztály, 2005.
- Orosházi Kistérség Gazdaságfejlesztési Stratégiája*. MTA RKK ATI, Békéscsaba, 1999. (Economic Development Strategy of Orosháza Small Region)
- Békés Megye Gazdaságfejlesztési Programja* [Economic Development Strategy of Békés County]. MTA RKK ATI, Békéscsaba, 2001.

### *Scientific literature*

- Benedek, J. 2006: *Területfejlesztés és regionális fejlődés* [Regional development and its effect on spatial processes]. Cluj Napoca, Universitatea Babeş-Bolyai, Presa Universitara Clujeana.
- Csatári, B. – Timár, J. (ed.) 2002: *Területfejlesztés, rendszerváltás és az Alföld* [Budapest. (Regional development, transition and the Alföld – Hungarian Great Plain)]. Budapest, MTA Társadalomkutató Központ, pp. 29–58. (Magyarország az ezredfordulón. Stratégiai kutatások a Magyar Tudományos Akadémián. IV. A területfejlesztési program tudományos megalapozása).
- Faragó, L. 2005: *A jövőalkotás társadalomtechnikája. A közösségi tervezés elmélete* [Social techniques for creating the future. The theory of participatory planning]. Budapest–Pécs, Dialóg Campus Kiadó.
- Illés, I. 2002: *Közép- és Délkelet-Európa az ezredfordulón. Átalakulás, integráció, régiók* [Central and Southeast-Europe in the New Millenium. Transformation, integration, regions]. Budapest–Pécs, Dialóg Campus Kiadó.
- Nagy, I. – Kugler, J. (ed.) 2004: *Lehet-e három arca e tájnak? Tanulmányok a délkeleti határregió újjászerveződő kapcsolatairól* [Is it possible to be three faces of one region? Essays on newly forming connections along the Southeast border region]. Békéscsaba–Pécs, MTA Regionális Kutatások Központja.
- Nárai, M. – Rechnitzer, J. (eds.) 1999: *Elválaszt és összeköt – A határ. Társadalmi-gazdasági változások az osztrák-magyar határ menti térségben* [The border – divide and connect]. Győr–Pécs, MTA Regionális Kutatások Központja.
- Pálné Kovács, I. 1999: *Regionális politika és közigazgatás* [Regional policy and public administration]. Budapest–Pécs, Dialóg Campus Kiadó.
- Rechnitzer J. 1998: *A területi stratégiák* [Regional strategic plans]. Budapest–Pécs, Dialóg Campus Kiadó.
- Rechnitzer, J. – Lados, M. 2004: *A területi stratégiáktól a monitoringig. (Módszertan, gyakorlati praktikumok)* [From regional strategies to monitoring process – Methods and practice]. Budapest–Pécs, Dialóg Campus Kiadó.
- Timár, J. 2007: *Határkonstrukciók magyar–szerb vizsgálatok tükrében* [Border-constructions – results of a Hungarian-Serbian research project]. MTA RKK ATI Békéscsabai Osztály.

# **CHANGES IN COOPERATION ALONG THE HUNGARIAN AND SLOVAKIAN BORDER**

**ISTVÁN MEZEI**

## **The main characteristic features of the Hungarian and Slovakian border**

The present borders of Hungary were marked out in the peace negotiations of 1920. Since these borders were not drawn along the dividing line of the regions, they were the reason for a lot of difficulties both in a social and in an economic sense. To solve this contradictory situation, several attempts were made after 1990 and especially after the accession to the European Union in 2004.

With its length of 678 km, the Hungarian and Slovakian border is our longest border. Its western section is the Danube, in the east it spreads from the River Ipoly to the River Tisza. The bridge between Esztergom and Štúrovo was the last to be rebuilt of all the bridges destroyed in World War II, and what is more, in as late as 2001, which clearly symbolises the relations between the two countries.

Along both sides of the border there are areas of different stages of development. The most developed borderland area is that around Bratislava, which is a part of a region of European significance, that of Vienna–Bratislava–Győr. This region is becoming a real agglomeration area. The border here ensures more favourable possibilities for those seeking them and divides the tumult of blocks of flats and the residential areas of family houses. Slovakian citizens who want to get rid of the crowdedness of the expensive flats in Bratislava can find more convenience in the cheaper housing of Hungarian villages which also means a new lifestyle for them. They benefit from the differences in living standards and settlement structure that are due to the existence of the border.

The next section of the Danube divides the more industrialised Hungarian cities from the agricultural regions in Southern Slovakia. The available jobs in Hungarian towns attract thousands of commuters from the agricultural area of Slovakian Žitný ostrov. Those living in this region have much poorer living conditions than those coming from Bratislava.

The lifestyle of those living on the two sides of the border section from the River Ipoly to the River Tisza is very similar. These settlements have very few job opportunities and there is a high rate of unemployment. Towns and villages on neither side of the border can offer appropriate jobs to those living here. Of all the towns of the region along this part of the border, it is only Košice that is unique

concerning both its number of inhabitants and its high-level economy. Those living along this part of the border are waiting for new jobs to be created anywhere on either side of the border to make it possible for them to make a living without having to move, even if they have to commute every day.

*Table 1* shows the census data of the five Slovak regions and the six Hungarian counties (*Figure 1*). The figures of Bratislava region and Pest County include the figures of the capitals, too.

Figure 1

*Counties and regions along the Hungarian and Slovak border*



Source: Edited by István Mezei, drawn by Máté Mády.

Table 1

*The main figures regarding regions and counties along the border*

Region/county	Agriculture	Industry	Services	Rate of employment	Secondary education	Higher education	Younger than 16	Hungarian	Gypsy	Slovak
Bratislava	7.34	26.42	66.24	55.32	29.80	17.04	16.09	4.58	0.13	91.26
Trnava	6.12	29.01	64.87	51.20	24.01	6.04	18.79	23.73	0.57	73.91
Nitra	7.62	27.56	64.82	50.59	24.00	6.47	18.30	27.56	0.66	70.05
Banská Bystrica	7.34	26.42	66.24	50.11	25.77	7.01	19.36	11.75	2.34	83.65
Košice	5.68	22.74	71.58	51.76	26.07	7.51	21.47	11.15	3.89	81.82
5 regions together	5.68	24.12	70.21	51.08	25.89	8.67	18.93	15.74	1.64	80.03
Slovakia	5.38	27.54	67.08	51.08	25.62	7.87	20.07	9.68	1.67	85.79
Győr-Moson-Sopron	5.77	39.50	54.73	42.08	17.84	6.68	21.98	95.61	0.38	0.04
Komárom-Esztergom	4.39	45.33	50.28	39.16	19.86	8.60	18.67	94.12	0.84	1.61
Pest	1.50	25.18	73.32	40.63	17.77	7.25	19.03	92.40	0.93	0.46
Nógrád	3.01	43.54	53.44	32.99	18.66	7.03	19.65	96.03	4.52	1.58
Heves	5.60	38.71	55.69	33.78	17.10	5.77	19.27	95.95	3.88	0.22
Borsod-Abaúj-Zemplén	3.88	34.32	61.79	28.12	24.21	14.35	16.93	96.58	6.26	0.30
6 counties together	2.68	30.47	66.85	37.96	21.75	11.35	18.27	95.01	2.75	0.64
Hungary	5.50	32.86	61.64	36.19	19.12	9.16	19.19	94.40	2.02	0.38

Source: Census, 2001. KSH, Štatistický úrad SR.

Table 1

*Selected statistical data concerning the economic development of the commune of Dobra Szczecińska against the background of Poland*

Feature	Dobra Szczecińska	Mean in rural communes	Feature	Dobra Szczecińska	Mean in rural communes
Area (km <sup>2</sup> )	110.3	199 474	Average area of a dwelling (m <sup>2</sup> )	110.3	86
Population	11 455	10 763 576	Dwelling area per person (m <sup>2</sup> )	36.1	24.5
Population density (persons/km <sup>2</sup> )	103.9	54	Share of dwellings with bathroom (%)	97	84.6
Share of population in productive age <sup>1</sup> (%)	80.9	66.1	Share of dwellings with municipal or own water supply (%)	99.5	87.8
Share of population using water supply network (%)	97.5	71.6	NGOs per 1,000 inhabitants	1.6	1.8
Share of population using sewage network (%)	82.3	20.5	Private businesses per 1,000 inhabitants in productive age <sup>2</sup>	211.3	91.9
Population number per pharmacy	5946	6756	Own revenues of communal budget per inhabitant (PLN)	1410	656
Population number per library	2973	2552	Expenditures of communes per inhabitant (PLN)	1438	1837

*Note:* <sup>1</sup>Males: 15–64 years of age, females: 15–59 years of age; <sup>2</sup>Males: 18–64 years of age, females: 18–59 years of age. Danych..., 2006.

The whole of Slovakia is less industrialised than Hungary, and its southern regions together with the comparatively high number of agricultural districts along the Hungarian border show lower values. Those employed in services represent a high rate in both countries but it is mostly due to the two capitals. Slovakia shows a considerable advantage in the rate of employment within the whole population. As for schooling, there are more people having a certificate of secondary education in Slovakia; in the northern counties of Hungary, however, the rate of graduates is higher. Slovakian regions have a younger population than the neighbouring Hungarian counties. Both countries have ethnic minorities, but Hungary is more homogeneous, the rate of the majority is higher. The Hungarian and, respectively, the Slovak population, as the dominant nationalities, make up the majority in the counties and regions of both countries. There is a high number of Hungarians in the regions along the Danube, but the continuous Hungarian zone is broken in the area to the east of the River Ipoly. On the Hungarian side the Slovak ethnic minority lives sporadically. The figures show that, in our northern counties, to the east of the River Ipoly there is a higher rate of Gypsy ethnic minority compared with the national average. Similarly, their number is the highest in the long Košice and the large Banská Bystrica regions on the Slovak side. Their number is much lower on the two banks of the Danube.

### **The typical forms of cross-border cooperation**

#### *Construction of highways*

Compared to the settlements inside the country, those along the border are all in a more disadvantageous situation. This can especially be seen in the fact that their transport infrastructure is limited. Transport is all the more important because it makes the development of economic relations possible, i.e. provides a living for the inhabitants of the settlement. The existence of the border usually makes transport, and, with it, economic life more difficult, therefore discussions about cross-border cooperation usually focus on transport.

At the turn of 2007 and 2008, right after opening the border, the inhabitants of the villages close to the border began to clean and renew crossing points. These minor roads ease the isolation of the local people and drive them back to the centuries-long coexistence. There are roads that connect towns. After the Eszkáros road is built, the distance from Sátoraljaújhely to Košice and to Košice airport will be halved; i.e. it will only be 45 km.

Rebuilding the bridges over the river Ipoly would play a similar role, because they would mostly be small-scale investments. Building paths between villages, bridges connecting minor roads would be necessary.



The joint activity involves a lot of new phenomena. In a political sense it is a novelty that those participating in the cooperation do not act upon superior orders or a central party decision. The joint work was organized by local government representatives and mayors. Village people, who agreed with them, also took part in the work. Voluntary activity involves civil cooperation because local governments have neither the necessary budget, nor the competencies to reconstruct or build roads between settlements. It is a sign of a wide joining of social forces that workers of the neighbouring gravel and stone pits and cement factories, as well as those living in the area, took part in the road-construction work.

The opposite national feeling can also be experienced along the opened border: defying the European Union, the mayor of the part of the town which used to belong to Sátorajújhely but is a Slovak settlement called Slovenské Novo Mesto today, is not willing to remove the concrete flower-boxes from the road so as to make transport impossible there.

### *Revival of traditions*

The cooperation of the settlements that are close to each other focuses on the revival of traditions, which is quite understandable after the long separation. The local governments examine what traditions they have in the fields of built heritage, landscape or human activities (e.g. folk or town customs, cultural values). They write projects concerning traditional crafts and famous products. However, these traditions will be transformed and modernised gradually. Modernisation of traditions means that the individual and common values that have been rediscovered are made suitable for being sold on the markets of tourism and will become a new means of subsistence. This is how wine tourism goes together with the world of spas and aqua parks, offering specialities together with hiking tours or sports (cycling, rowing, and rock-climbing), etc. This is how the Danube has once again become a link and an opportunity for future development. The *Eurovelo 6* international cycle track on the bank of the river, as well as the ports and infrastructure necessary for water tourism, are also being planned.

As an example, we would like to describe the relations between the Hídverő (Bridge Building) settlements in the estuary of the River Žitava. This association was set up by the Rákóczi Alliance at the end of the 90s. The main idea was that the former historical interdependence had to be revived and, in an abstract sense, bridges had to be built between the settlements on the two sides of the Danube, as a result of which cooperation may be easier in the future, and the microregions emerging in this way will be more powerful before the different forums.

Association membership significantly contributed to the development of the settlement Neszmély, a village organizing the cooperation. It can utilize the infra-

structure necessary for the organization of the Bridge Building Days, (e.g. community area made of wood, cooking facilities for several thousand people on the bank of the Danube), on other occasions as well. Organised by an American travel agency, a boat cruise always stops on a regular basis at the village, where a wide range of programmes awaits tourists. The utilisation of the facilities of tourism is of great importance for the other river bank, as well. It is a plan of theirs to build a 'Europe' village in the territory of the two villages opposite each other, where the traditional village architecture of the member states of the Union would be exhibited. Visitors will be admitted to the exhibitions on both sides of the border, and their visit will only be complete by having seen both.

Parallel facilities can also contribute to the relations of two settlements. The thermal water supply on both banks of the Danube is exploited in a similar way. The smaller Slovakian settlements having a spa join the colourful programme facilities of the bigger Hungarian towns. The baths that are close to each other are complementary because in most cases aqua parks have been built in the neighbourhood of spas.

The motivation to build new roads and to revive traditions was national sympathy, which was then replaced by planned, project-based cooperation.

### **Planned cooperation**

#### ***Project-based cooperation of the tender market***

A typical feature of project-based cooperation is that it focuses on some kind of joint investment. The investment usually requires joining forces for one particular purpose, which, as shown by the above mentioned examples, can be organized as voluntary work, i.e. with their own resources. However, to carry out large-scale tasks, a larger sum of money is needed, but due to tight resources, the backward situation and the compulsion of money acquisition, they can only carry them out by applying for tenders. This is how human demands will lead to projects. Since it is in most cases good luck and not just needs that determine which settlement may get into the favourable position of applying for a tender successfully, writing tenders has become an everyday activity, whereas winning a tender is really unique.

In the beginning, cross-border cooperation was supported by the PHARE CBC programme. Regarding the Hungarian and Slovakian border, two restrictions have to be mentioned. On the one hand, it was only in 1999 that the possibility of a joint tender became accessible for this section of the border, because formerly there had been two attempts with the Austrians. The other restriction is that, although this is the longest part of the border viewed from Hungary, it was granted the least support, i.e. 2 million euros, which remained unchanged year by year. There was a

change only in spending it, i.e. those who won tenders could carry out their tasks to an ever increasing extent (*Table 2*).

In the course of the procedure the authorities modified the original practice, because, owing to the high number of demands, they divided the sum of money meant for large-scale tenders into several parts in the last two rounds. If the money that can be distributed is tight, then at least more people should be supported with it. In case of small sum grants the conclusion can be drawn that the rate of the tender activity of the towns was higher, and more applications were submitted from the counties to the east of the Danube. The large difference between the applied and the actually spent sum underlines the former remark that it was good luck that played the most important part in who would be the winner from among several good applications (*Mezei, 2004*). Local governments, in both their domestic and international activities, could experience the poor choice of the tender market. They are forced to participate by the tight municipality incomes. A thorough examination of the incomes could only provide exact information about the income structure of the individual local governments, among them that of local governments in the borderland, the proportion of tender money within their incomes and about whether the tender incomes of local governments in the borderland has increased so that they can ease their backward situation, and whether the proportion of the grants allocated to them has been increased or not.

Table 2

*PHARE CBC programmes along the Hungarian and Slovak border*

	Approved support	Contracted	Completion of the programme	Supported projects	
				large	small
1995	1,500,000	723,116	1999.07.31	4	–
1996	1,500,000	1,498,580	2000.12.31	4	20
1999	2,000,000	1,793,815	2002.12.31	1	11
2000	2,000,000	1,969,670	2003.12.31	1	11
2001	2,000,000	1,998,659	2004.11.30	1	9
2002	2,000,000	1,998,659	2005.11.30	15	11
2003	2,000,000	1,953,459	2006.11.30	18	5

Source: Váti Kht.

### **Consequences of cooperation**

Revealing the actual conditions and the analysis of the situation have to precede the preparation of common plans. On this basis plans can be drawn up. Situation analysis is based on an increasingly thorough expertise, sometimes with the contribution of researchers, sometimes by involving local experts. Analyses are the results of thorough statistical, data collecting work. They analyse the conditions of settlements or those of a region, and on this basis try to outline the development that can be expected or planned. While planning the cooperation, they have to survey geographical space, population, employment, education, economic environment and transport infrastructure. Therefore, it can be assumed that more and more principles of sciences, i.e. those of geography, sociology and economy will be used by the general public. Several trades are represented by those involved in the planning process. Besides the representatives and experts of local governments, the experts of administration, actors of the business sector and entrepreneurial interest protection, and civil organizations are also involved.

The structure of the institutional system of planning or the method of its operation is still not complete. The subject of development also keeps changing. In the beginning, governments were forced to develop backward regions, i.e. large regions, and then regional units, i.e. microregions around cities became privileged. In recent times, with the growth pole programme, national centres have become privileged; nowadays, however, the development of cities gains increasing importance.

It is the English language that could be used to overcome language difficulties, but neither party is really prepared for that, and besides, local people do not really think it would be a natural way of communication. The young generation still at school is expected to be able to use English as a mediatory language, but in real life it is still not known which will be the language used to maintain relations. As a result of opening the border, Hungarian language proficiency has gained appreciation. Today there is a need for educated young people who can speak Hungarian, Slovak and English, especially in settlement and regional development, as well as in the business sector.

### ***Plans to organize joint services***

The most complete form of communications is when, disregarding the border, services are combined to fulfil human and marked demands. This is the most practical form of cooperation, which is mostly backed up by institutions, e.g. the communal service provider, school, health care or social provision as services meeting human needs, as well as actors of the economy that observe market needs so as to earn

profits. The role of the mediator is played by county municipalities. They want to find the actors that carry out similar tasks and the parties that are entitled to take part in talks (state, local government, business and civil representatives) and they make them start negotiations. They provide the necessary administrative, office and legal experience to help provide combined services.

The institutions involved in providing the service in a direct way (hospitals, medical services, ambulance, primary and secondary schools, social institutions, communal service providers, etc.) inform each other about their strengths, free capacity, as well as their weaknesses or capacity needs.

Urgent health provision is accepted and regulated by international agreements. However, in the case of programmed, planned and controllable health care depending on the condition of the patients, social security systems should agree concerning the expenses of health care. Health care is rather costly and needs a lot of medical instruments. Therefore the possibilities of a fairer distribution of burden have to be examined. They have to find out who and in what field has something to offer to the other party in return for something else. The first step to be taken is to survey specialist health care, followed by the examination of settlement systems. Costs of treatments are different in different countries, there is a considerable difference in prices between the individual countries. Slovakian insurers do not think it is worth making the more expensive services in Hungarian hospitals available for patients of Slovakian citizenship. Developing relations with the units on the other side of the border is made all the more difficult by the fact that Hungarian health care conditions have been unpredictable for years.

Regarding education, social provision and every other service, agreement has to be reached about covering the state or local government costs of the provided service. In education national solidarity has solved the emerging problems so far. In the secondary schools of the towns close to the border there are a comparatively high number of students who are not of the Hungarian nationality, but there are a lot of maintainers who share their costs. For example, in the town Sátoraljaújhely, there are secondary schools maintained by the county, the town and the church, too, or in 2007 the maintenance rights of the Slovakian-Hungarian bilingual primary school were taken over by the Local Government of the National Slovak Minority. In this way the costs of the about 100 students studying in the town are borne by several maintainers.

The joint organization of the services means that both countries have to harmonise their laws and regulations.

### *The multiplier effect of cross-border relations*

Hungarian and Slovakian relations provide several examples for the multiplier effect, i.e. the launched development persuades the decision-makers of the two countries for further cooperation to an increasing extent.

The people living in the borderland need transport on fast and short roads. Besides the direct and small-scale connections, roads are also needed to make possible the development of relations between countries, or even large regions including several countries possible. An example for this is the new bridge between Esztergom and Štúrovo, and after it had been built, further plans appeared. Mária Valéria Bridge, which was inaugurated in 2001, symbolized the end of World War II, because this had been the last bridge ruined in the war in Europe. In real life it provides the opportunity for the two countries to develop actual, everyday relations. However, after transport had been started on the bridge, new problems arose. Commercial relations between the towns and regions on the two banks of the river turned out to be developing at such a quick rate that the bridge connecting city centres soon became too narrow. Another, bigger bridge has to be built not far from the town to meet the increased needs of cargo transportation.

This demand, which the mayors of the two cities also mentioned, leads to a question concerning Europe: where should the new north-south direction European transport corridor be located, where should the Helsinki corridor signed V/C be? Two regions are competing: the Ipoly Valley (Nógrád County) and the Esztergom–Štúrovo region (Komárom-Esztergom County). Both refer to Budapest, the most dynamic centre of the Carpathian Basin being close, when they want to emphasize their own significance. When making a decision, the European Union will also take a stand while taking the interests of several countries into consideration, since the plan will affect the north-south connection of Eastern-Central Europe. Hungarian planning affects the transport problem of the whole of Europe, i.e. that it is mostly the east-west transport lines that have been built, but north-south transport lines would also be necessary. The needs of the two towns have coincided with the ideas of those who would like to build a transport network of Europe.

Similarly, the development of the international transport of the eastern part of the country is also very complicated and important. The border was drawn in a way that now the railway junction belongs to Ukraine. Getting there is only possible from Hungarian Záhony and Slovakian Čierna. Roads have also been adjusted to this triangle, excluding both Hungary and Slovakia from the usage of this important communication junction. In this case, it is not a third country, but Ukraine that is the third party in the ambition to restore the natural gravitation areas. Therefore, to avoid the problems with Ukraine, a new communication corridor seems to be developing from Finland, via the Baltic countries, Poland, Košice in Slovakia and Miskolc in Hungary to the south (*Molnár, 2007*).

### References

- Mezei, I. 2004: A 2000-es PHARE CBC Kisprojekt Alap bemutatása [Introduction of the 2002 PHARE CBC Small Project Fund]. *Falu-Város-Régió*. 1–2. pp. 68–71.
- Mezei, I. 2006: Állam – ország – régió és a valóság [State – Country – Region and Real Life]. *Tér és Társadalom*. 2005. 3–4. pp. 187–203.
- Mezei, I. 2008: *A magyar–szlovák határ menti kapcsolatok esélyei* [The Chances of the Relations along the Hungarian and Slovak Border]. Budapest–Pécs, Dialóg Campus Kiadó.
- Molnár, L. A. 2007: Térségi fejlődés és úthálózat Keletközép-Európában [Spatial Development and Road Network in Easter-Central Europe]. *Falu-Város-Régió* 2. pp. 61–69.
- Pálné, Kovács I. 2001: *Regionális politika és közigazgatás* [Regional Policy and Administration]. Dialóg Campus Kiadó, Budapest–Pécs.
- <http://www.karpatinfo.net/article38065.html>

# **BULGARIAN–GREEK CULTURAL-HISTORICAL TOURISM CORRIDORS**

**MARIA GROZEVA**

## **Introduction**

The present work considers some aspects of one of the types of specialised tourism in Bulgaria, namely the cultural-historical one. An attempt is made for juxtaposition with Greece, a country having rich traditions in this respect; and situated in the geographical neighbourhood of Bulgaria.

This choice for comparison and combination, except the geographical proximity and rich experience of Greece, is determined also by the fact that most of the cultures and civilizations that emerged on the Balkan Peninsula have left similar monuments in both countries exactly due to this geographical neighbourhood.

As a result of the geographical situation of the Balkan Peninsula, a crossroad, shortest way and “bridge” between Europe and Asia, it has attracted the attention and interests of different conquerors since the ancient age. On account of that, it has been the object of aggressors’ aims; and for long historical periods partly or entirely had been dominated by a variety of Balkan and foreign civilisations. All these civilizations, independently of their modern assessment, objectively left many and various ruins, which represent the interest, not only for the specialists, but for a lot of tourists. Some part of these monuments is included already in tourist turnover, but it can’t be claimed that an optimum is reached in this respect. The knowledge of these monuments, together with other types of tourism, historical sites etc., have to gain a greater priority in the supply of tourist packages and services.

## **Possibilities for cross-border cooperation between Bulgaria and Greece in the cultural-historical tourism sphere**

Bulgaria disposes over a number of internationally known and confirmed sea, mountain and balneological resorts, hunting parks, historical, religious, ethnographic and other centres and complexes, drawing many Bulgarian and foreign tourists (*Figure 1*). Over 5 million foreigners, excluding transit-passing, visit this country every year. On its territory are found about 40,000 historical monuments, sanctuaries, historical sites etc. 8000 of them have a proven high cultural-historical



value. That fact arranges Bulgaria in the third place after Italy and Greece among countries richest in cultural-historical monuments in Europe. Not accidentally, this kind of tourism and tourist products is indicated among the perspectives of the 2005–2015 National Strategy for Regional Development of Republic of Bulgaria.

Figure 1

*Borderline of the Republic of Bulgaria*



Source: Atlas of Bulgaria.

An important prerequisite, which facilitates to a great extent mutually favourable cooperation with Greek partners, is the accession of Bulgaria in the European Union, Greece being a member-country for several decades. The development of tourism in both Bulgaria and Greece in this context has to be in conformity with the new global tendencies, determined by the 1995 “A Charter for Sustainable Tourism”, developed by UNESCO in cooperation with the World Tourism Organization (WTO). Many authors already make the correct observation that the new

characteristics of tourist demand and supply, marketing and advertising strategies are determined by the higher interest of the tourists in the environment, the increasing interest in the healthy types of recreation, in the cultural-historical heritage.

Trends for the growth of tourism should correspond also with priorities of the 2004 “Programme for development of the tourism”, accepted by the same organizations in Beijing, which request the protection and development of the cultural-historical heritage, traditions and manners of the local population etc.

There is also an objective competition in tourism, as in the case of all other economic activities and sectors. It is expressed in various ways – offering of preferential seasonal prices, additional free-of-charge services, tourist package subscriptions, aggressive advertising activity etc. The different tour operator companies use still more effectively a great variety of advertisement approaches to attract tourist flows. This is a normal practice between competitors. But, having in mind the constant diversification of the offered packages or separate tourist services and the certain surfeit of the tourist market, wouldn't it be possible for the competitive subjects to be transformed into partners? This imposes the necessity of searching for new possibilities for the enrichment of the tourist potential, available in both countries.

Naturally, one of the most important possibilities for bilateral cooperation is the funding of joint projects. Certain financial resources are available within the framework of the EU PHARE Programme. More than 5.4 million Euro are envisioned in this programme for supporting projects related to the development of cultural, tourist and human resources on both sides of the Bulgarian-Greek border. The districts of Blagoevgrad, Smolyan, Kardzhali and Haskovo are included in this range from the Bulgarian side and the prefectures of Thessaloniki, Seres, Drama, Xanthi, Rhodopi, Evros – from the Greek side.

The local authorities and the non-governmental organizations (NGOs) are among the factors, on which the submission for financing of projects depends, related to the more comprehensive investigation and use of the existing tourism, including cultural-historical tourist resources in this area.

A good example in this respect is the agreement between the ministers of tourism of Bulgaria and Greece for offering a joint tourist product (programme) “The Rhodopes – the native land of Orpheus”. There is hardly need to argue what the nationality or tribal affiliation of Orpheus or some other real or semi legendary personality, but it is important to try to find the common aspects into the discovered historical and archaeological monuments and to incorporate them in similar bilateral projects. This is the most effective way of using the discovered cultural-historical sites as the subject of cognitive tourism, which may be advantageous for both countries. It is exactly the creation of similar common tourist products and

their joint offering on the tourist markets, exhibitions and stock markets that will strengthen further on the cross-border cooperation as a whole.

Another common activity, is a tourist centre at the Perperikon ancient Thracian complex, will be created in the Bulgarian–Greek East Rhodopes mountain region. The EU PHARE Programme finances this project with 2.4 million Euro. The Project aims to increase tourist interest in the common cultural-historical heritage.

### **Substantiation of creation cultural-historical tourist corridors in Bulgaria and Greece and their definition**

The paper contains a proposal for differentiating the cultural-historical monuments and sites that had been left as traces from various civilizations and had been built during different epochs in this part of the Balkan Peninsula – Bulgaria and Greece, as respective cultural-historical corridors. Here is the place to clarify what is the exact meaning of the concept of a “*cultural-historical tourist corridor*”. This is a geographically (territorially) differentiated sequence (chain) of cultural-historical objects of similar historical age, origin and features, belonging to a given epoch, which represent a tourist interest. Very often, except within the territory of one country, these corridors spread beyond its present borders. Depending on the historical period, in which these axes or corridors are created, they might be *prehistoric, ancient Greek, Thracian* etc. In the case when the aims of the visits are monuments and sites from one historical epoch, the cultural-historical corridor is “*thematic*” or “*mono-temporal*”. When objects from different epochs are included, which are in territorial proximity and have transport accessibility, the axes or corridors provisionally might be called “*complex*” or “*poly-temporal*”.

The development of similar topics related to proving the existence of cross-border cultural-historical corridors between the two countries, as well as their differentiation as an important segment of the tourist potential, will not only enrich this potential but will also contribute to its more complete and rational utilisation.

The work takes into consideration only these civilisations and cultures that have been reliably and authentically historically documented in our territories without taking into account the eventual remains from some cultures that have not been permanently established on the Balkan Peninsula – for example Celts, Goths and others. The reliable evidence for them is rather fragmentary and scarce. In this context, various remains have been scientifically established in the two countries from the following historical ages and civilizations:

- Prehistoric;
- Classical Greek antiquity and Hellenistic period;
- Thracian;
- Byzantine (East Roman Empire).

Of course, some of these epochs or civilizations existed and developed in parallel (synchronously) in the respective historical period and exerted mutual impact on each other to a certain extent, except that each of these civilisations had inherited something from the previous ones and this influence had also been reflected in the monuments that had reached the contemporary epoch.

### **The geographical distribution of main Bulgarian-Greek CHC (cultural-historical corridors)**

The concept of *CHC*, however, is provisional and it should not be perceived in the direct geometrical sense. The aim is to point out the common aspects of the cultural-historical monuments that had been created throughout the ages by the single peoples and to outline their connection with the respective historical epochs and civilisations, as well as their significance as a common Balkan heritage.

The cultural-historical sites of the aforementioned epochs, and objects of cultural-historical tourism, are situated in different parts of the territory of Bulgaria and Greece. But the main Bulgarian-Greek CHC are situated in the Rhodope Mountains and at the Black Sea coast.

*Rhodope CHC* includes numerous antiquates from the mentioned epochs but the special feature of this corridor is the existence of a great number of prehistoric rock monuments. Two basic groups are mainly distinguished between the preserved remains: megaliths and caves. It is considered that most of the megaliths (menhires, steinkreise, hochkreuze – kromletsi and dolmens) were created during two of the three epochs of the Stone Age – the Mesolithic (10,000–6,000 B.C.) and the Neolithic (6–5,000 B.C.) periods. Science has not yet succeeded at explaining with certainty what the purpose of these stone structures was, but the most widespread opinion is that they had cultic functions. Some of them were used later as dwellings and for other purposes. According to *Ovcharov* (2005) megalithic structures of various forms have been discovered in Sakar, Strandzha, East Rhodopes, East Stara Planina Mts. and in other areas in Bulgaria. A part of the dolmens (their number being about 100) are found on both sides of the contemporary Bulgarian-Greek state border in East Rhodopes and they are dated as Early Iron Age. According to some authors (for example Gyurov and Rangelov, Zacharieva, etc.), other rock objects, which are widely distributed all over the Bulgarian territory, belong also to the megalithic culture – stone sanctuaries in caves, rock niches and other formations as these in East Rhodopes, the caves used as dwellings during the Paleolithic, Mesolithic, Neolithic and Bronze Age. Interesting rock sepulchres are found near the Pchelari and Ovchevo villages in Kardzhali district. Numerous domestic objects, weapons etc., have been discovered in many caves, but the rock images on

their walls, preserved to different extents, have the highest value. The first settlements in Greece also date back to the Paleolithic. Their remains are found in North Greece near the Bulgarian border, as well as in many other places. The megalithic culture in Greece was created by the Kars and Pelasgi tribes. Those were the first autochthonous settlers in continental and insular Greece and predecessors of the ancient Greeks, which have not been established to possess expressed megalithic practice and traditions. The considerations mentioned so far represent a sufficient argument for the differentiation of the prehistoric monuments at that part of the border as an individual cultural-historical tourist configuration. It is to be regretted that most of them are not sufficiently renowned and there is no good transport to ensure access to them. In this corridor are situated also objects from the Thracian epoch (Perperikon sanctuary, the Mezek tomb near Svilengrad, Aleksandrovo tomb near the city of Haskovo etc.) and Byzantine objects (remains of mediaeval towers and fortresses).

*Black Sea coast corridor* – the sites of this corridor are situated along the Bulgarian Black Sea coast and had been created during various epochs, but the most typical monuments are from the *classical Greek antiquity* (mainly from the period VI – IV B.C.) and the Hellenistic epoch. Classical Greek antiquity is also called the “Golden Age” or “Golden Centuries”. This was the period when all basic classical samples of Greek art and culture were created. Most of the eminent Greek writers, philosophers and scientists worked during this period. Large scale construction took place, accompanied by vigorous development of the arts, sciences, law, trade etc. Classical Greek antiquity by means of ancient Greek colonization at the Bulgarian Black Sea coast had left numerous traces. Such interesting remains have been discovered and are fit for tourist visits in the areas of the ancient towns-states of Apollonia Pontica (now Sozopol), Mesembria (present Nesebar), Odessos (Varna) and others, created by Milethian, Dorian and Ionian Greeks. The section of the fortress built by the ancient Mesembrians in the VI century B.C. is well preserved. It surrounded the peninsula of the present Nesebar for protection against rivals during this epoch – the Ionian colony of Apollonia Pontica; the remains of an ancient well are preserved – a part of the temple of Aphrodite in Sozopol, built probably in IV B.C., as well as many other monuments, a significant part of them being restored and prepared for tourist visits. The numerous stelae, weapons, utensils, coins and other exponents are exhibited in the rich collections in museums.

The Hellenistic epoch was the epoch when the first Eurasian intercontinental empire of Alexander The Great, was created, through which the ancient Greek (Hellenistic) civilization was distributed over almost the entire Balkan Peninsula, Asia Minor and the Middle East. A large share of the Thracian monuments bear its specific features. In this context, many of the remains of the Thracian and Hellenistic epochs overlap with respect to time, construction style etc., which is due to the certain hellenisation of the Thracian tribes and is the product of the influence of

Hellenistic culture and traditions especially on the Thracian ruling strata. Such monuments with respect to their images, building structure and other features, are concentrated mainly in the towns – Balchik (Bizone, Dionisopolis), Varna (Odesos), Nesebar (Mesembria), Sozopol (Apolonia Pontica), Pomorie (Anhialo).

Examples of cross-border tourist axes could be prehistoric sites on both sides of the Bulgarian–Greek border, monuments of Thracian and Ancient Greek cultural-historical heritage, visits to Byzantine and Bulgarian churches and monasteries – i.e. the formation of religious tourist axes etc. These are examples of thematic tourist axes.

In the geographical respect, for example, the Rhodopes-Strandzha cultural-historical corridor could be successfully combined with the Macedonian-Thracian one on Greek territory.

And since, as already mentioned, in the historical plan the cultural-historical monuments were created during epochs, when the whole or almost the whole Balkan peninsula was under the reign or range of one civilisation (Hellenistic, Roman etc.), it is possible not only to establish connections between the axes but also to offer and advertise them in the form of cross-border cultural tourist corridors, and to form respective tourist products, presented and offered at international exhibitions and stock-markets.

Of course, similar cross-border cultural-historical tourist connections, routes and products may and have to be created with other neighbouring countries too.

Along the Danube River, for example, cross-border tourist corridors presenting still preserved cultural-historical objects from the Roman Empire could be created. At that time a large-scale construction was started. A specific feature of this corridor is the large number of fortresses, built near the river banks. Plenty of roads, fortresses, well planned towns urbanised for their epoch with water supply conduits, theatres, therms (public baths), temples and other public buildings were erected in the conquered Thracian lands. Significant number of towns emerged around the military camps of the legions allocated at the Danube coasts. In the present Bulgarian territory, these are the ancient fortress Ratiaria (now Archar village), fortress Nove (near the present town of Svishtov), Dorostorum (now Silistra), Bononia (Vidin), Almus (Lom), Sextaguinta Prista (Ruse), Transmariska (Tutrakan) and others. Some of the Roman towns in the interior of the country were created around or on top of already existing Thracian settlements, mineral springs, defiles and strategic places. Others were entirely newly built. Ancient Roman towns – Nicopolis ad Istrum (now near Nikyup village), Abritus (present town of Razgrad), Ratiaria (Archar village) and some others have been partially uncovered until now. In the town of Silistra there is a Thracian sepulchre, which is a unique monument of world importance from the IV century B.C., with its rich ornamentation of well preserved frescoes. The alignments of the most important Roman roads are preserved along significant distances, for example the diagonal road “Via Militaris”,

passing throughout the entire Balkan Peninsula, “Via Egnatia”, passing along the northern Aegean coast of present Greece and many other roads, along which numerous post stations existed, the remains of some of them being preserved until now.

### Conclusions

Regardless of the great ethno-religious diversity of the people inhabiting the Balkan Peninsula, they possess many common features both in psychology and traditions, life style and folklore, etc., which result from the common past and destiny during the previous historical periods. The concept, briefly proposed here, can overcome or at least mitigate the real or assumed rivalry between the countries on the peninsula, since all of them have created significant cultural monuments, representing incontrovertible tourist interest and being one of the most attractive in tourist respect not only in Europe but also in the world.

### References

- Golebski, G. 2002: *Wyodrebnianie regionow turystycznych. Kompendium wiedzy turystyce*. Warszawa, PWN.
- Grozeva, M. 2005: Principals for sustainable tourist development on the Balkans (In Bulgarian). *Geographic Education*, 6, Sofia.
- Grozeva, M. 2006: The Balkan cultural-historical axes as a tourist resource (In Bulgarian). *Problems of Geography*, 3–4, Sofia.
- Grozeva, M. 2006: Bulgarian tourism development tendencies at the International markets (In Bulgarian). *Geography 21*, 5, Sofia.
- Kolev, B. – Grozeva, M. 2000: Infrastructure highlights of the cultural and historical potential of Vidin region. In: *Cultural values as a basis for A Spatial integration of Danubian countries*. Belgrade.
- Ovcharov, N. 2006: The Unique Thracian megaliths. Sofia. *Art and History of Greece* (In Russian). Casa Editrice Bonechi, Firenze, 1997.
- History of Bulgaria. Vol.1*. Prof. M. Drinov Academic Publishing House, Sofia, 1979.

PROBLEMS AND NEW  
PROCESSES

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# **PROBLEMS OF BORDER REGIONS IN BULGARIA**

**CHAVDAR MLADENOV – BORIS KAZAKOV**

## **Introduction**

The paper reveals some socio-economic and demographic issues of the municipalities that form a belt along the national borders of Bulgaria. For a long period of time, those areas have been in an unfavourable geographic position compared to the areas inside the country, because of wars and following border changes, and during the period between 1944 and 1989, those areas continued to suffer from isolation due to political reasons.

It should be noted that municipalities along the Black Sea are not considered as border regions. The paper concentrates on the areas along the southern, western and the northern national borders only.

In the years of the so called transition to the market economy, the border regions of Bulgaria (especially those along the southern and western border) became accessible and are no longer restricted areas. However, the impact of long-term isolation is apparently not so easy to overcome. Despite the new border check points that have recently been opened, Bulgarian borders still seem to be a separating line rather than contact lines of the national territory with neighbouring countries. To some extent, an explanation of that situation is the terrain itself – with very few exceptions, all the municipalities along the southern and western border are situated in mountainous and hilly areas, which poses many problems for transportation and economic development. On the other hand, an additional effect seems to have the degree of development of border regions of the neighbouring countries' themselves.

The modern national borders of Bulgaria were outlined back in 1940. Due to geopolitical reasons, border regions used to be treated as buffer zones used for military purposes, and therefore those areas were neglected and the investments limited. After the WW 2, because of the block separation and confrontation, border areas developed slower than the rest of the country. As a result, border regions became a less developed periphery of an unfavourable geographic location. On the other hand, the western and southern borders of Bulgaria are situated in mountainous regions, which further increased their isolation.

In this paper, the municipalities along the Black sea coast are not regarded as border regions (except for the northernmost and the southernmost). Only regions along the south-eastern, the southern, the western and the northern border have

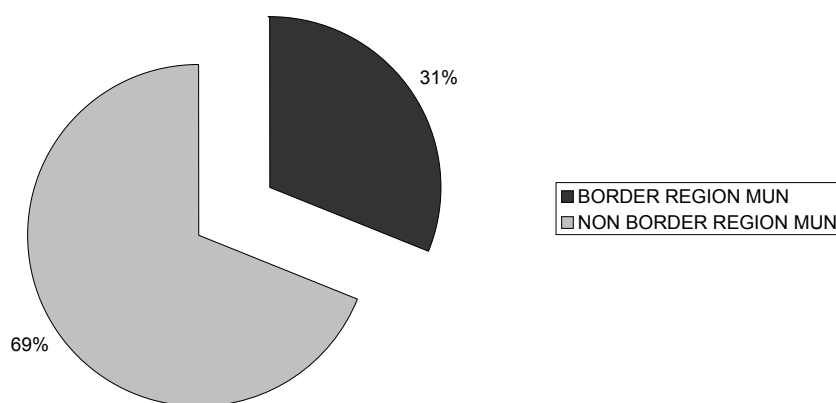
been taken in consideration. The delimited border areas include a total of 82 municipalities (31 % of all Bulgarian municipalities), which cover 24% of the national territory and give home to 15 % of the Bulgarian population (*Figure 1*). The majority of border municipalities are sparsely populated and generally unattractive, which results in a population density of only 41 people per square kilometre or almost two times lower than the national average (*Figure 2*).

The natural potential of border regions is quite limited and insufficient. The mountainous terrain is a major obstacle for transport development and cross-border cooperation. The density of the road network is less than 20 km/100 sq km and the roads are of a low class and hard to maintain. There are settlements deprived of access to roads with hard (asphalt) covering. The Rodopi and Strandzha regions, have very low railroad accessibility. The idea of linking the Bulgarian railroad network to that of Greece, by continuing the railway from Podkova toward the White Sea (corridor No 9), has not been accomplished yet. Along the southern borders of Bulgaria, there are only 6 BCPs, two of which were launched after 2000. The Danube River represents the longer part of the northern border with Romania and a natural barrier for cross-border cooperation. Along 470 km there is only one bridge at Ruse–Giurgiu, while the construction of the second, at Vidin–Calafat, has not even begun.

There are four ferryboat lines along the Danube River, and at least one more is expected to be launched. Along the land border with Romania, there are three BCPs which are generally not busy and have little effect on the local economy.

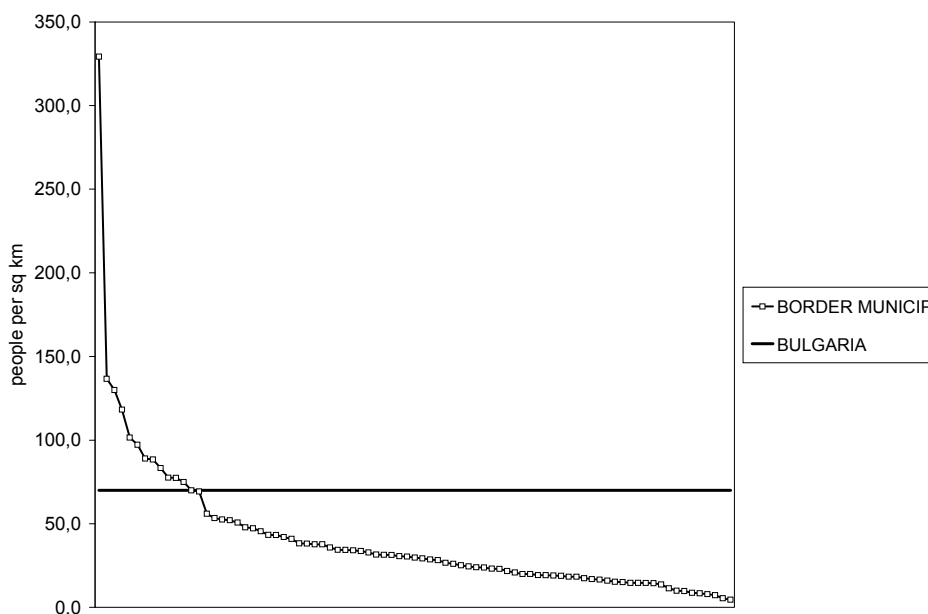
Figure 1

*Number and share of border and nonborder region municipalities in Bulgaria*



Source: Authors' construction.

Figure 2

*Population density in border region municipalities (2006)*

Source: Authors' construction

The western border with Serbia and FYROM there is crossed by only one railway (at Kalotina BCP), while the railway networks of Bulgaria and FYROM have not been linked yet. The western border can be crossed at 8 BPSs, in comparatively hard terrain, which results in limited opportunities for cross-border cooperation. All regions on both sides of the western border are less developed due to natural and economic conditions, and therefore, despite all expectations, economic revival triggered by cross-border cooperation has not been observed so far. Limited communication has a negative effect on the general socio-economic development of border regions and the country as a whole.

As far as nature resources are concerned, there are conditions for development of timber and ore output industry in some border regions, though the ore output was significantly reduced after 1992. During the years of transition to the market economy, the timber industry developed, as well as other activities such as mushroom and herb gathering etc. The existing tourist and recreational potential of border areas, has not been utilized to a sufficient level. There are also some unutilised waters in border areas whose exploitation is a matter of bilateral agreements. Very

little of the huge potential of the Danube River is used, especially for agriculture, tourism, industry etc.

During the years of transition to market economy and the fall of strict border access regimes, together with the NATO and EU membership of Bulgaria, border regions, especially those along the southern and the western border, became more accessible and are no longer restricted areas. However, due to long periods of isolation, those regions inherited a whole range of demographic and socio-economic problems, many of which still wait to be solved, despite the variety of regional development programmes and strategies in place.

The border regions of Bulgaria suffer from a significant demographic crisis. Some of those areas began to depopulate in the early 1960s of the 20<sup>th</sup> century (especially the municipalities along the western and the south-eastern border), due to large scale migration outflows toward the inner parts of the country. For the period between 1992 and 2007 the population of border regions has decreased by 300,000 people or 17.5%. The average annual decrease is quite stable at levels of 19,600 people (1992–2001) and 18 900 people (2002–2007). The highest level of population losses is typical for the least developed municipalities such as Boynitsa, George Damyanovo and Chiprovtsi and Nevestino municipalities along the western border, which have decreased their population by 40 to 42 % for the period between 1992 and 2007. Some municipalities suffered a similar loss due to emigration of Bulgarian Turks (representing the majority of their population) to the Republic of Turkey (Krumovgrad municipality – 40 % decrease of population).

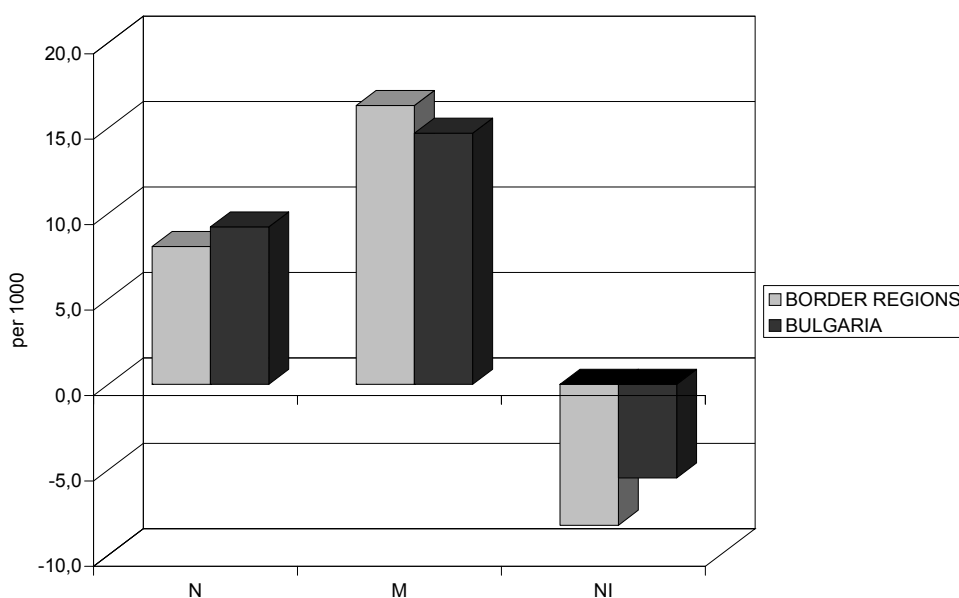
The reproduction of population in border regions as whole is a regressive type. All border municipalities have seen a natural decrease of the population since 1990, except for some municipalities populated by Bulgarian Muslims, or Pomaks, in the Western Rodopi region along the Bulgarian–Greek border. The average natural increase of the border regions population is –8.3‰, which is lower than the national average (–5.5‰). In modern days, the negative natural increase is the leading factor for loss of population in border areas. That natural decrease of Bulgarian population is a result of extremely low birth rates of 8.1‰ (9.2‰ – national average) and high death rates, reaching 16.3‰ (14.7‰ national average). The reproduction parameters are the worst in municipalities along the western border (–18.8‰ natural increase). The regressive type of reproduction leads to problems of various nature – destabilization of municipalities due to the lack of demographic potential, ageing of the population and the respective social and healthcare needs that follow, of school closures due to an insufficient number of students etc. (*Figure 3*).

The emigration flow in border regions is generated mainly in municipalities with predominantly Turkish population. The internal migration rate is also negative (around –4‰) which contributes to the depopulation of border regions. The immigration to migration rate is 18‰ to 22‰. The highest emigration rate is measured

in municipalities along the Bulgarian–Greek border (−6.5‰) and the Bulgarian–Romanian border (−3.5‰). This is a reflection of unfavourable socio-economic conditions together with a sufficient demographic potential to form an emigration flow. The formation of such a flow is possible due mainly to high unemployment levels. In flat terrain areas, high levels of unemployment are due to agriculture structural reformations, which result in the preference of highly mechanised agriculture (mainly grain and sunflower production). The opposite immigration flow toward border regions is generated mostly by elderly residents as well as unemployed people, who return to their homes.

Figure 3

*Crude birth rate (N), death rate (M) and natural increase (NI) of the population (2005)*



Source: Authors' construction

Another major problem of population in border regions is ageing. Generally, border areas do not differ from the rest of the country as far as the 0–14 demographic group is concerned (15.2%), and as for the 60+ group – the share of that group is only 2 percentage points higher in border regions (24.5%) compared to the national average. The active age population group ages as well and accumulation

of population in higher ages within that group is continuous. In the near future that process will result in a large-scale shortage of labour force in border areas, which is going to pose major difficulties for the eventual improvement of the policies targeting labour force demographic characteristics. Aging of border regions population poses also the question of the income and social security of elderly residents. The Bulgarian pension system operates on conditions of low investments interests, high levels of unemployment, low production efficiency, a large share of grey economy etc., factors which further worsen the situation. The higher share of people over 60, leads to a low living standard and a lack of opportunity for a decent existence in many border areas. The existing healthcare system was not made to handle such high portions of population over 60 years of age, considering that healthcare expenses grow dramatically when that population group is concerned.

Another ageing feature is the shrinking of the fundament of the age-sex pyramid, which also leads to a chain of negative consequences such as decreasing chances for a normal reproduction of the population, deterioration of the school and other facilities network etc. In many of the smaller border municipalities, it is impossible to form classes or groups of students and to sustain a normal education process. The closure of schools triggers the emigration of families with children which contributes to the depopulation process.

The unemployment level in border regions is 11.5% (2006), which, as mentioned above, is 2.4 points higher than the national average (9.1%). A quarter of all unemployed people in the country reside in border regions. However, that relatively low unemployment level is a result of the extremely low unemployment levels in some of the larger cities in border areas, such as Ruse, Blagoevgrad etc. In fact, the unemployment level in 25 border municipalities (nearly 1/3 of all border municipalities) is over 20% (Dimovo – 40%, Ruzhintsi – 38%, Bregovo – 29%, Kaynardzha – 36% etc.). This is a result of closing a range of industries during the transition to market economy – reducing the ore output, closing of branch-factories, arable land restitution, liquidation of cooperative farms etc. On the other hand, those areas are unattractive for local and foreign investors – mostly Greek and Turkish, who open only small firms in the field of shoes and clothing industries – requiring fewer investments. Such firms function for a period of one to three years or even less, using only the cheap labor force and client/customer supplied materials. Therefore, border regions have little contribution for the national industry. Labor efficiency in border areas is twice lower than the national average and thus the industry generated income (per capita) is only 40% of the national average. Thus, the “center – periphery” problem is sharpened additionally and the standard of living in border regions is worsened.

In general, problems of border areas can be defined as follows:

1. Legislative changes – the formerly distinguished target regions, such as backward rural regions, regions for cross-border cooperation etc., do not ex-

ist anymore and the target regions in the district development strategies have not been defined yet;

2. As a result of geographic location, the attention paid to the regional economic relations is not enough. Therefore, border areas remain disconnected from the neighbouring countries. The last represents a major obstacle for intensifying economic activities in those areas;
3. Relatively weak transport infrastructure, distant from the major Eurocorridors and urbanisation axes of Bulgaria. That transport isolation, together with the existing relations with neighboring countries, hinders the formation of higher concentration of population and industries on both sides of the border – something typical for border areas in developed EU countries;
4. Constantly spreading depopulation, leading to the degradation of the settlement network and making economic stimulation and revival impossible;
5. The highly deteriorated age structure of the population in some areas leads to a very high economic burden for the active population and to a constricted reproduction of the population;
6. The regressive type of reproduction narrows the fundament of the sex-age pyramid of the population and its widening at the top, which leads to negative subsequent changes in the educational, social and healthcare infrastructure;
7. Sustainable emigration flows leading to a constant depopulation and age structure deterioration;
8. The lack of national priorities for border regions development and the lack of coordination between the regional development strategies make it impossible to implement the Lisbon Strategy requirements for developing a knowledge-based and competitive economy.

The aforementioned demographic problems of border regions of Bulgaria reflect a more complex socio-economic situation in those regions which additionally can be described using other examples, such as GDP per capita, HDI etc., which however are less accurate on a municipal level and harder to calculate on such a level.

However, when talking about border regions in Bulgaria there are several basic conclusions that can be made:

- The launch of new BCPs is generally overestimated in their efficiency, because on their own, they are not able to solve the majority of economic and employment issues in border municipalities;
- The Bulgarian legislative body and the government (at central and local levels) work without the coordination of place and time, which is fundamental part of efficient regional development, which is regarded more as a problem only of the Regional development ministry, rather than an integral problem of



almost each ministry. Therefore, we can not expect faster development, increase of the living standard and overcoming the “centre–periphery” problems, unless the separate ministries come out of their “separate” approach and the integral approach is legitimated.

- Because of the distant geographic location of Bulgaria (considering the location of the economic centre of Europe), the Balkan countries should seek a closer contact in order to achieve better economic relations and cross-border cooperation. The existing lack of connectivity between the transport network of Bulgaria and its neighbouring countries represents a huge barrier on the way to achieve that goal.
- Unlike the more developed European regions, border regions in the Balkan countries are less developed and sparsely populated, which is a result of deliberate isolation of those regions for political reasons. Therefore, the formation of Euroregions between Bulgaria and its neighbouring countries would not be efficient because those regions would consist of equally underdeveloped border regions.
- Cross-border cooperation could reduce the negative effect of economic isolation of border areas, although “miracles” cannot be expected in the short-term. In the long-term, however, cross-border cooperation is an optimal solution of socio-economic problems of border areas.

### References

- Geography of Bulgaria* 2002: pp. 439–517, pp. 669–737, Sofia, ForCom Publishing house (in Bulgarian).
- Geshev, G. 1999: *Problems of regional development and regional policy of Bulgaria*. pp. 33–39 (in Bulgarian)
- Mladenov, Ch. – Dimitrov, E. 1998: Migration of the population in the Western border areas. *Proceedings of The International Scientific Conference “100 years Sofia University”*, Sofia, pp. 203–210. (in Bulgarian)
- Mladenov, Ch. 1998: Demographic situation in the Danube Regions. *Problems of Geography*. 1–2. Sofia.
- Kazakov, B. Spatial distribution and dynamics of the rural population in Burgas district in the period 1992 – 2001. *Year's book of Sofia University, vol. 98/2007, book 2 – Geography*, pp. 203 – 219 (in Bulgarian)
- Kazakov, B. 2008: Dynamics of the rural population in Sliven and Yambol districts in the period 1992–2001. *Year's book of Sofia University. Vol. 99. book 2 – Geography*, pp. 215–225 (in Bulgarian).
- Population. National Statistical Institute: 2003–2007, Sofia.

# **DEVELOPMENT OF THE NEW TOURIST SPACE IN THE POLISH BORDERLANDS**

**MAREK WIĘCKOWSKI**

The geopolitical and socio-economic changes in East-Central Europe that have been started at the beginning of the 1990s have brought about a radical change in the function of boundaries, the status of border zones and the character of cross-border relationships. One of the most visible kinds of human activity in the borderlands is the appearance of the rapid development of tourism. The main effect of these changes was the increase of tourist flows.

Tourism has become a highly significant growth industry in all border zones in Poland. This sector of the economy is fully involved in the integration with the European economic space. In the first stage, it has become a side effect in the boom of business activities, as the main foreigner arrivals purpose was business and shopping. In the late stages, the variations of flows of visitors and tourists are relevant to the political and legal effects of the European integration. Tourism is fully involved in the integration of Poland into the European space, but in a specific way. Indeed, besides tourists, many more visitors from abroad are persons whose purpose is to do business. The tourist space of Poland is essentially coastal, mountainous, urban and border.

## **The increase of border movement**

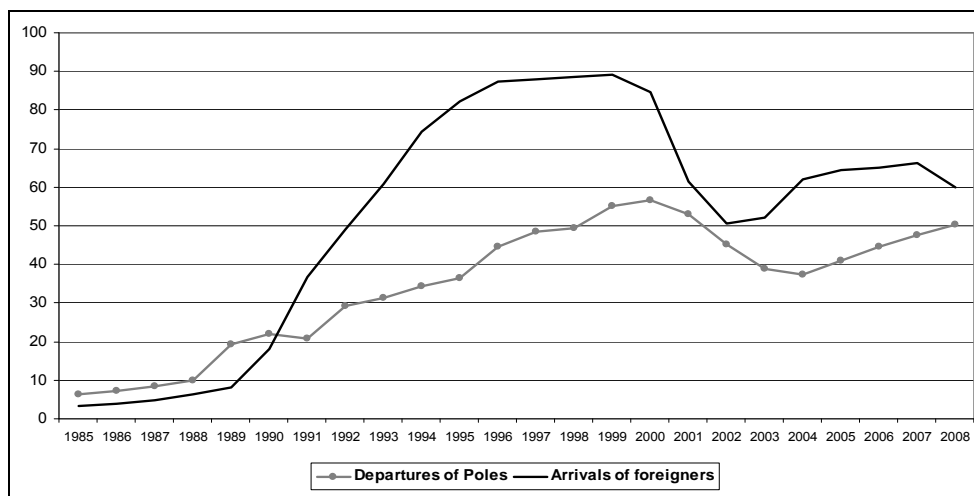
Along with the political, economic and social transition which occurred in Poland after 1989, the mechanisms and patterns of mobility including migration and tourism have radically changed. Border movement plays a very important role for borders areas. The cross-border petty trading and shopping was largely represented in the 90's. At the beginning of the XXI century, the significance of this type of mobility has been reduced. Actually, the two other types of international mobility: international tourism and labour migration play this very important role (*Więckowski, 2008*).

The border region has been characterised by the remarkable dynamics of peoples' mobility in the recent decades. The growth of number of people's crossing all Polish borders between 1990 and 2000 amounts to more than tenfold. After 2000

the number of visitors grew less, and after that the situation has been normalized with a little growth each year. In 2008, more than 110 million people have been crossing the Polish borders in both directions. The number of foreigners coming to Poland was about 60 million in 2008. In the same year, the number of Poles crossing the border increased to 50 million. The large majority of this number is just one-day visitors in the neighboring countries. The number of tourist trips with a minimum one night spent abroad is about 7 million.

Figure 1

*The number of Polish border crossings by year, 1985–2008 (million)*



Source: Border Guard.

### The relationships between borders and tourism

Matznetter (1979) highlighted some of the connections between boundaries and tourism, and suggested a three-fold typology of spatial relationships between the two: where the boundary line is distant from tourist areas, where a tourist zone exists adjacent to the boundary on only one side, and tourist zones that extend across, or meet at the borders (Matznetter, 1979).

International boundaries may have significant implications for tourism, especially in terms of planning, promotion, and taxation. The borders influence tourism in many other ways (Timothy, 2002). The flow of tourists, their choice of destinations, the planning and physical development of tourism, and the types and extent of marketing campaigns are all affected by the nature of political boundaries. The

borders delineate an abrupt change in language, religion, political attitudes, cultural traditions and social mores. National holidays on either side of a border are obviously different and business hour may vary. Various scales, or levels, of boundaries exist, and each of them has its own purpose. National boundaries have the most obvious impact on the natural environment, economic operations and patterns of socio-cultural interaction.

Border regions are „areas whose economic and social life is directly and significantly affected by proximity to an international boundary” (*Hansen, 1981*), and have a great potential for development of tourism. According to many studies tourism is very good developing in border areas (e.g. *Matznetter, 1979; Arreola and Curtis, 1989; Essex and Gibb, 1989; Galluser, 1994; Timothy, 2002, Więckowski, 2002, Więckowski, 2007*).

Borders related policies, differences in administrative structures on opposite sides, and the physical barrier created by borders can affect many aspects of tourism, including travel motivations and decision-making, infrastructural development, marketing and promotion as well as place image. One of the most ubiquitous forms of borderlands tourism is cross-border shopping (in Poland especially: grocery, outlet, alimentary products and variety stores).

### **Tourism space in borderland**

Borders have a strong effect on tourism. In many areas we can observe contrasting development on two sides of a border. Borders influence the spatial development of tourism. Additionally, tourism also has strong effects on the border landscape.

First of all, contrasting development on two sides of a border can be created by different histories, different settlement patterns and urban structures, and socio-economic differences. Borders and the socio-political systems they enclose create contrasts in spatial and administrative patterns on opposite sides, differences in tourism patterns and landscapes across boundaries.

Differences in tourism patterns and landscapes across boundaries are often visible. In some places, tourism is heavily developed spatially adjacent to a border on one side but not on the other. The eastern borderlands of Poland and neighbouring countries are characterised by a weak tradition in tourism and a lack of regional „identity” as a tourist destination. The development of the new tourist space and infrastructure is possible thanks to the European funds and is observed mainly on the Polish side. There are many tourist routes – even nowadays – ending at the border, where, therefore, the possibility of getting acquainted with the territory of the neighbouring country terminated.

Tourism infrastructure does not exist on the Russian side. The existence of special permissions in the border zone is one of the most important problems for the

development of tourism. In the Kaliningrad Oblast, there exists a forbidden zone for people. In Vistula Spit, the forbidden zone extends 7 km from the border, while near the Russian-Lithuanian border it extends 13 km.

In the Polish borderland, especially in the eastern and western border zone, the service of border traffic as a primary function in endogenous development encompasses relatively small areas isolated from each other and widely dispersed along the border and in the immediate vicinity of the crossings thereof (see *table 1*). On the Polish-German border, contrasting development on two sides is also visible

Table 1

*Opportunities, barriers and threats in tourist infrastructure  
on the Polish-German borderland*

	Opportunities	Barriers and threats
Tourist infrastructure centres and development	<ul style="list-style-type: none"> <li>– Developing supply and demand for domestic and foreign tourist services</li> <li>– Outstanding natural and cultural features plus attractive landscape as a foundation for the further development of tourism</li> <li>– Particularly valuable features for waterborne tourism (inland and sea)</li> <li>– Special conditions for health and spa-based tourism</li> <li>– Increased interest in buying land and second homes</li> </ul>	<ul style="list-style-type: none"> <li>– Low-standard accommodation base and supporting infrastructure</li> <li>– Difficulties with returning to a tradition in tourism and region's lack of "identity" among potential clients</li> <li>– Possible downgrading of some border areas to service transit traffic only</li> <li>– Short season and overburdening of some centres</li> <li>– "Takeover" of potential clients for borderland tourist services by more efficient and better-organised agencies on German side</li> <li>– Competition from alternative tourist areas close to borderland area</li> <li>– Inadequacy of pricing in relation to quality of services offered</li> <li>– Inadequacy of marketing of tourist centers and regions</li> <li>– Poor accessibility</li> </ul>

*Source:* Węclawowicz, G. – Degórski, M. – Komornicki, T. – Korzeń, Ja. – Bański, J. – Korzeń, Ju. – Soja, R. – Śleszyński, P. – Więckowski, M. 2006.

In the comparison of the two sides of borderlands, the Polish side will be characterised by:

- low standard of accommodation base and support infrastructure and its strong concentration

- inadequacy of pricing in relation to the quality of services offered
- inadequacy of marketing of tourist centres and regions

On the German side, the tourism space can be characterised by:

- high standard of accommodation base, high prices and relatively regular spatial distribution of tourist infrastructure
- higher level of investments in the tourism sector
- more efficient and better-organized tourist agencies
- very good accessibility

### **Borders and the spatial development of tourism**

Borders determine the nature of the tourist landscape and its elements that will develop in frontier regions. Borders can be viewed as: barriers, destinations and transit zones. Borders have a strong effect on tourism. Tourism can in many instances, help to create and alter the border landscape.

International boundaries can be viewed as barriers to travel from at least two perspectives: real and perceived. Many governments have established travel restrictions on their own citizens for a variety of reasons.

Border-related policies, differences in administrative structures on opposite sides, and the physical barriers created by borders can affect many aspects of tourism, including:

- travel motivations and decision making,
- infrastructure development,
- marketing and promotion,
- place image.

Borders are spatial barriers before the development of the transport network. Their impact as barriers to transport depends on the degree of formalisation and permeability. The action of boundary as a spatial barrier is most often expressed through institutions. The gradual reduction of frontier as a spatial barriers is envisaged, progressing along with spatial integration processes.

The type of border has an important influence on the development of tourism. The external borders of the EU with Russian Federation, Belarus and Ukraine appear as barriers to free travel. The Polish borders with Germany, the Czech Republic, Slovakia and Lithuania after Poland's accession to the European Union and to the Schengen Zone are changing their status, and come into existence as the fully open border. The frontiers of national parks appear as unique barriers to travel freely in borderlands.

Border crossing points are magnets for the development of tourism, especially in the border towns. One of the most ubiquitous forms of borderlands tourism is cross-border shopping.

The Polish-German border is simultaneously the zone of destination (especially for Germans) and the transit zone for others.

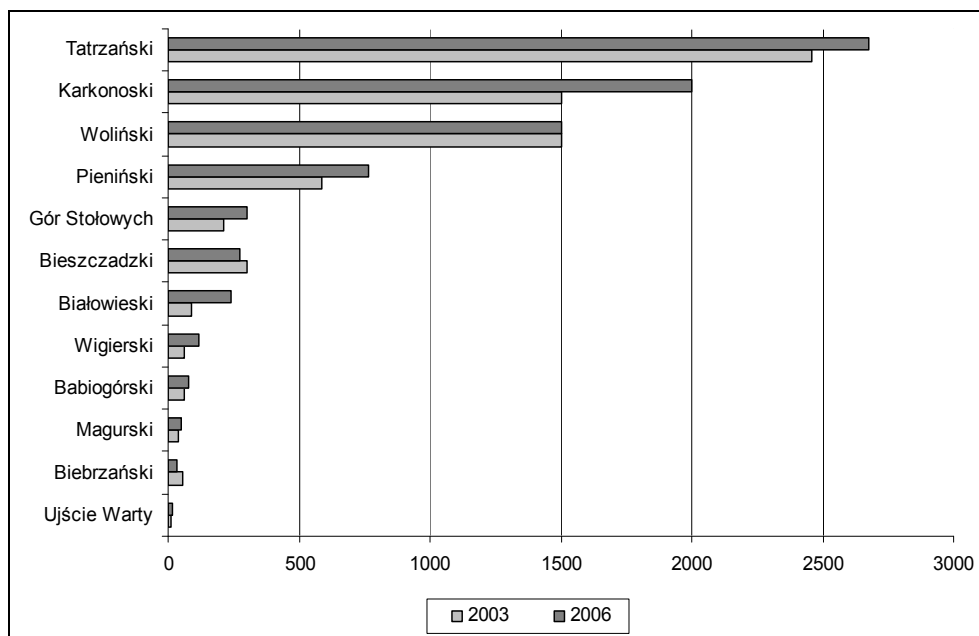
The Carpathian Mts., both in Poland and in Slovakia, constitute one of the most important tourist regions of the two countries. Over the decades the Polish and Slovak parts were being developed and used separately. There are many tourist routes – even nowadays – ending at the border, where, therefore, the possibility of getting acquainted with the territory of the neighbouring country terminates (The same situation exists on Polish–Czech borderlands). Tourist attractions on the border e.g. Dunajec Gorge and mountain ranges can better prosper thanks to the synergy effect.

Borders have a stronger effect on tourism, tourism can, and does in many instances, help to create and alter the border landscape. Borders determine the nature of the tourist landscape and its elements that will develop in frontier regions.

The main tourist destinations in the borderlands are border national parks. In many regions, tourists and hosts are often concentrated in areas commonly known as tourist districts, where the infrastructure, services, and other physical characteristics have developed largely as a result of tourism. The borderland areas present an ideal location for protected areas and tourism development. In most cases the border national parks constitute very important tourist regions. In Central and Eastern Europe many of the national parks are in a privileged situation near the state borders (*Denisiuk et al, 1997*). Nine from all 23 Polish national parks are adjacent to the state border. Three additional ones are situated near the border. Five parks from this number constitute international parks situated on both sides of the border (Karkonoski NP, Tatra NP, Bieszczadki NP, Pieniński NP, Białowieski NP). In Poland more than 8 million people visit nine national parks adjacent to international borders each year (70% of the tourist flow in all national parks in the country). Poland's number one natural attraction – the Tatra National Park – receives around 3 million visitors a year. The National Park in the Karkonosze Mts. receives 2 million visitors a year. The Pieniny National Park make a destination for 800 thousand tourists (*Więckowski, 2008*).

Figure 2

*Number of tourists in national parks in Polish borderlands (thousand)*



Source: Data from Ochrona Środowiska 2007

### **What future for tourism development in Polish border regions?**

For the development of tourism in borderlands, the most important factors are:

- border crossings, (especially out of the Schengen Zone)
- tourist routes reaching the border crossings,
- tourist routes along the border, accessible for tourists from both countries,
- the appropriately adapted and located accommodation facilities,
- the consistent transport system, including coach and railway lines,
- common, mutually agreed tourist information and promotion
- the joint tourist offer for the development of international tourism.

In the next years, the type of border will have an important influence on the tourist development. The Polish borders with Germany, the Czech Republic, Slovakia and Lithuania after Poland's accession to the European Union and to the Schengen Zone change their status, and come to existence as fully open borders.



The prospect of Poland joining the Schengen Agreement determines the potential spatial effects of the changes in the magnitude of movement on the border inside of the European Union. Joining the agreement will signify that all border checkpoints are closed down, as well as allowing for the possibility of crossing the border in any place. On borders, many old check-points exist, most of them useless. Only some of them have been turned into tourist centres or information points, retail outlets trading with regional products or restaurants, especially in the national parks.

The increase in movement may require the further development of trans-boundary transport infrastructure (also for pedestrians and cyclists). The cessation of passport control will have specific effects on the labour market, parallel to those generated by the removal of customs clearance in 2004. This may lead to growth in economic activity in the areas immediately adjacent to the border as a result of the disappearance of restrictions as well as psychological barriers.

The external borders of the European Union with the Russian Federation, Belarus and Ukraine appear as barriers to free travel and the development of tourism purposes. These borders will probably remain a marginal tourist destination, excepting some cases.

### Summary

The paper presents selected problems of the development of tourist space in Polish borderlands. International boundaries may have significant implications for tourism, especially in terms of planning, promotion, and taxation. The borders influence tourism in many more ways. The flow of tourists, their choice of destinations, planning and physical development of tourism, and the types and extent of marketing campaigns are all affected by the nature of political boundaries.

First of all the borders constitute spatial barriers for tourism development. Their impact as barriers for tourism depends on the degree of formalisation and permeability. The action of boundary as a spatial barrier is most often expressed through institutions. The gradual reduction of the frontier as a spatial barrier is envisaged, progressing along with spatial integration processes.

Borders can be main tourist destinations, thanks to cross-border shopping, specialised services, welcome centres, health tourism and transit zones. The borderland areas are ideal locations for tourism development. In most cases the borderlands constitute very important tourist regions. They are attractive areas in terms of nature, landscape and tourism, owing to which anthropogenic pressure is amplified along with the tourist traffic, while on the other hand, there exists a strongly developed need for the protection of these areas. As a matter of fact, nine of Poland's national parks are situated along national boundaries. Two additional parks are

adjacent to the sea frontier, and three are situated near the border. To demonstrate the scale of tourism in national parks in borderlands, this article shows and explains the number of visitors in these areas. More than 8 million people visit twelve national parks adjacent to the international borders each year (70% of the tourist flow in all national parks in Poland).

### References

- Arreola, D. D. – Curtis, J. R. – 1993: *The Mexican Border Cities: Landscape Anatomy and Place Personality*. Tuscon, University of Arizona Press.
- Denisiuk, Z. – Stoyko, S. – Terray, J. 1997: Experience in cross-border cooperation for national park and protected areas in central Europe. In: Nelson J. G. – Serafin, R. (eds.) *National Parks and Protected Areas: Keystones to Conservation and Sustainable Development*. Berlin, Springer. pp. 145–150.
- Essex, S. J. – Gibb, R. A. 1989: Tourism in the Anglo-French frontier zone. *Geography*. 3. pp. 222–231.
- Galluser, W. A. (ed.) 1994: *Political Boundaries and Coexistence*. Bern, Peter Lang.
- Hall, D. 2000: Cross-border movement and the dynamics of transition processes in Southeastern Europe. *GeoJournal*. 2–3. pp. 249–253.
- Hansen, H. 1981: *The Border Economy: Regional Development in the Southwest*. Austin University of Texas Press.
- Matznetter, J. 1979: Border and tourism: Fundamental relations. In: Gruber, G. – Lamping, H. – Lutz, W. – Matznetter, J. – Vorlauffer, K. (eds): *Tourism and Borders: Proceedings of the Meeting of the IGU Working Group – Geography of Tourism and Recreation*. Frankfurt, Institut für Wirtschafts- und Sozialgeographie der Johann Wolfgang Goethe Iniversität. pp. 61–73.
- Ochrona Środowiska*, 2007 GUS Warszawa.
- Prescott, J. R. V. 1987: *Political Frontiers and Boundaries*. London.
- Timothy, D. J. 2002: *Tourism and Political Boundaries*. London and New York, Routledge Advances in Tourism.
- Węclawowicz, G. – Degórski, M. – Komornicki, T. – Korzeń, Ja. – Bański, J. – Korzeń, Ju. – Soja, R. – Śleszyński, P. – Więckowski, M. 2006: Studia nad przestrzennym zagospodarowaniem obszaru wzdłuż granicy polsko-niemieckiej. *Prace Geograficzne* nr. 207, IG i PZ PAN, Warszawa. (Studies on spatial development of the polish-german border region. Geographical Studies No. 207, Warsaw).
- Więckowski, M. 2002: Development of the new tourist space of the Western Carpathian Mts. in the 1990s. In: Komornicki, T. – Powęska, H. (ed.). *Europa XXI*, t. 7, IGiPZ PAN, OA PTG, Warszawa. pp. 121–131 .
- Więckowski M., 2007 : Création et fonctionnement des espaces touristiques frontalières en Pologne [w:] J. L.Cacomo (ed.). *Tourisme et frontières*. Paris, l'Harmattan. pp. 197–212.
- Więckowski, M. 2008 : Wybrane aspekty rozwoju turystyki w przygranicznych parkach narodowych w: *57 Zjazd Polskiego Towarzystwa Geograficznego, Białystok września 2008 r.*, Oddział Akademicki PTG, IGiPZ PAN Warszawa.

# CHANGES AND SPATIAL DIFFERENTIATION IN POLISH AGRICULTURE

ROMAN KULIKOWSKI

## Introduction

Agriculture is an important branch of Poland's economy and provides about 16% of the total country's employment. Equally, agriculture is in itself a major factor influencing the state of the environment and shaping the rural landscape.

Among the natural factors, the ones influencing the development of agriculture the most are climate, soil and relief. Some of the plants grown in Poland are subject to frequent ground-frosts in the late spring and early ones in the autumn. Another problem is the dearth of precipitation and its negative distribution through the year.

The soils in Poland were in a large measure developed on post-glacial sediments (sands, gravels and rarely clays). The best and very good soils cover only 3.3% of the country; poor and very poor soils take up 34.6%.

The plain is the most dominant type of relief which does not in general hinder cultivation.

Poland has a large potential where agricultural land is concerned. As more than half of the country is accounted for by agricultural lands, constituting for more than 10% of EU total farmland (*Bański, 2007*). A low level of pollution of the natural environment over most of the country, represents a major attribute of Polish agriculture especially from the point of view of food exportation.

The political transformation of the 1990s brought macroeconomic deterioration where agriculture was concerned. The first years saw an end to the state sector in Polish agriculture, as well as a limitation of eastern markets for its output. The period 1996–2000 brought a marked worsening of the relationships between the prices charged for articles farmers needed to buy and those paid their output was purchased (*Zegar, 2001*). Such changes meant a decline in farmers' incomes to about 40% on the average of what those employed outside agriculture could expect (*Orłowski, 2001*).

After Poland became an EU member state in May 2004, the macroeconomic background for agriculture started improving considerably. Exports of agricultural products from Poland to Western Europe had increased in a very short time by around 30% and the trend was maintained in the next months. Some 1.5 million Polish farmers have received direct payments under the Guarantee section of the Community's EAGGF. At present agricultural economists estimate about 40% of average income of Poland's farmers constitute the total EU fund supports.

### **Agrarian structure**

At the beginning of the 1990s, the changes of Polish agrarian structure had been significant – especially in terms of land ownership. In 1989 private farming owned 76.2% of total agricultural land in Poland, state farms possessed 18.8%, 3.8% was under collective ownership, and some 0.3% was kept by the agricultural circles (Głębocki, 2005). In the years 1992–1995, state farms and agricultural circles were liquidated and their land, together with land belonging to the State Land Fund was taken over by the State Treasury Agricultural Property Agency. Under the administration of the Agency some 4 million hectares were distributed, out of which 2.9 million were leased and barely 380 thousand sold. As the result of transformations the share of land used by private agriculture amounted to 95% of the total agricultural area and the average size of a private individual farm had increased from 7 ha of agricultural land in 1990 to 8.9 in 2007. Simultaneously the number of individual holdings decreased from 2138 to 1881 in parallel with the process of polarisation involving the increase of the share of the smallest holdings (1–2 ha) and of farms above 15 ha. The smallest acreage of holdings is observed in the southern provinces of the country, while the provinces featuring the largest acreage were in the north, where farms of more than 15 ha constitute about 70% of the total agricultural area (*Figure 1*).

### **Employment in agriculture**

As of 2007, agriculture was giving work to 2,092,300 people, or 13.7% of the total employment in the country. The average number of persons employed in agriculture per 100 hectares of agricultural land dropped in Poland from 24 persons in 1989 to 14.7. This number, likewise, varies considerably across space, ranging from 5 persons in Lubuskie voivodship and West Pomerania, 9 persons in Warmia and Mazury to 30 persons in the regions situated at the foot of Carpathians.

The 2002 Agricultural Census revealed that around half of all people running farms had no professional agricultural qualification whatsoever. Also as of 2002, the average figure for agricultural population with over primary education was 53%. In turn, tertiary education of relevance to agriculture was possessed by just 1.2% (*Figure 2*).

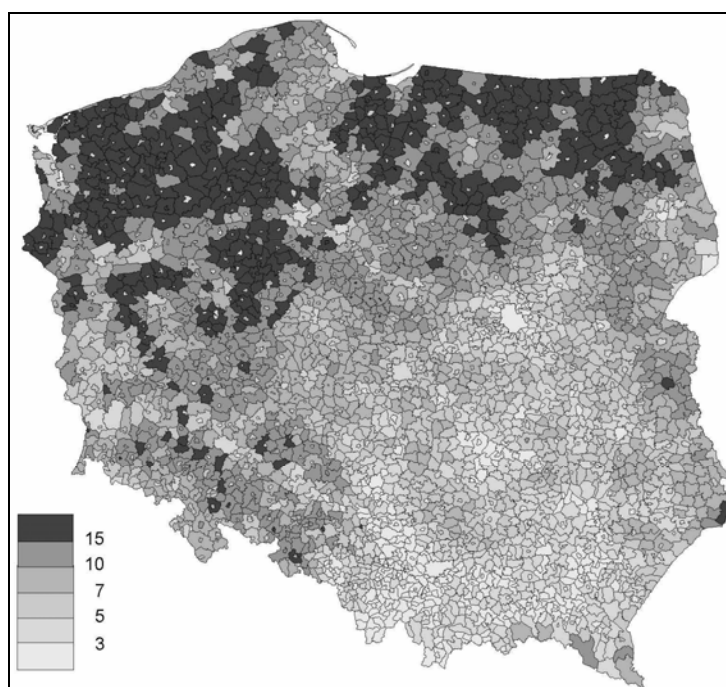
The changes in labour resources in the 1990s encompassed also their increase in South-East and Central Poland, where considerable surplus was noted, and the decrease in northern and western parts of the country. In South-Eastern Poland, as well as some central parts, the greatest proportions of farms being run by the over-65s are to be found.

### The mechanisation of agriculture and the use of mineral fertilisers

The over-dominant source of traction available in Polish agriculture is mechanical (98%). In the years 1989–2007 the number of tractors increased from 1.1 million to 1.5 million, while the areas of agricultural land per 1 tractor decreased from 16 to 10 ha. The serious problem in the circumstances of the still highly fragmented farms present in Poland is not so much that the number of tractors per unit of agricultural land is low, as that there is a shortage on the land of the kind of low-horsepower machines best suited to work on the small plots actually being cultivated. Furthermore, over half of these tractors have usually been produced before 1980 and represent dated technology. In the early 90s, there was an inevitable decline in the level of use of fertilisers – from 164 kg NPK per ha of agricultural land in 1989/1990 to 66 kg in 1992/1993. Usage rose slightly thereafter to reach 117 kg per ha of farmland in 2006/2007. As of 2000–2007, the supply of pesticides expressed in terms of kg of active substance rose from 0.4 to 0.9 kg per ha of agricultural land on the average. However, not all farms use pesticides.

Figure 1

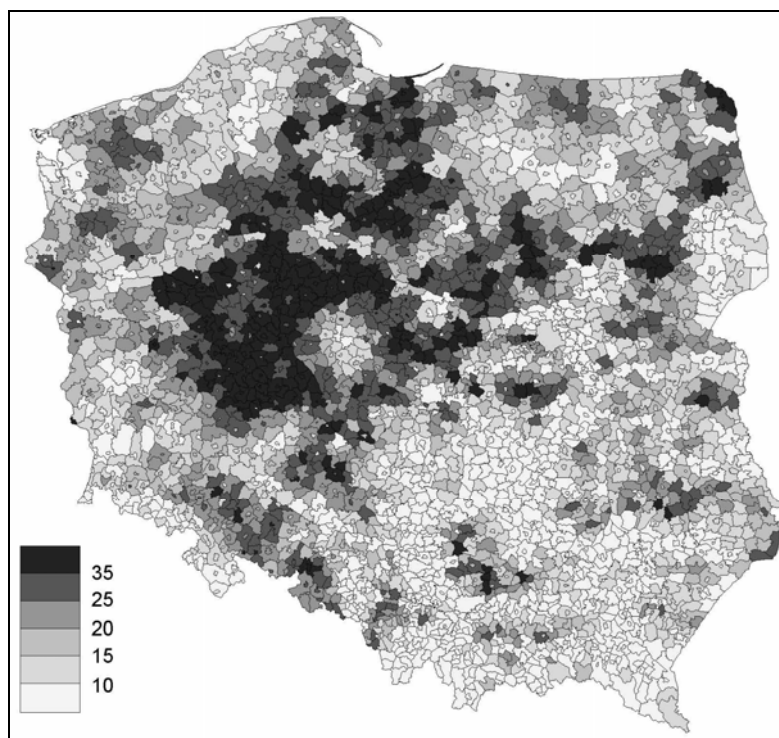
*Average size of Individually-owned farms in Poland, 2002*



Source: Author's elaboration according to *Geografia rolnictwa Polski* 2007.

Figure 2

*Percentage share of farm leaders with above primary education in the total number of farm leaders. Individually-owned farms in Poland, 2002*



Source: Author's elaboration according to Geografia rolnictwa Polski 2007.

### **Agricultural land use and crop production**

More than half (51%) of Poland is in agricultural use. Over  $\frac{3}{4}$  of farmland is arable land. Nearly 30% of the total country is forested.

The last 17 years have brought major changes in the land-use structure pertaining to agriculture (Kulikowski, 2005). First, there has been a marked decline in the overall area of agricultural land, along with a large decrease in the area of arable land (Table 1).

After arable land, it is meadows that represent the second most important category of agricultural land use. The area they occupy has not changed greatly over the last seventeen years. The area under orchards has increased since 1990 by 15.3% and the most important fruit-growing region is the one to the south of War-

saw. This accounts for little more than 1% of the country's farmland, yet supplies more than 1/3 of its fruit.

A distinct observable phenomenon post-1990 in relation to arable land was the marked fall in the area sown with crops (*Table 2*), not so much in area but in a large increase of the share being taken by cereals, as well as the absolute and relative decline for potato and fodder crop cultivation.

Table 1

*Structure of agricultural land use 1990–2007*

Agriculture land	1990		2000		2007	
	thousand ha	%	thousand ha	%	thousand ha	%
Total	18 539	100,0	17 812	100,0	16 177	100,0
Arable land	14 311	77,2	13 683	76,8	11 869	73,5
Orchards	269	1,4	257	1,4	337	2,0
Meadows	2 427	13,1	2 503	14,0	2 497	15,4
Pastures	1 532	8,3	1 369	7,7	1 474	9,1

*Source:* Author's elaboration according to Geografia rolnictwa Polski 2007.

Table 2

*Structure of cropland 1990–2007*

Cropland	1990		2000		2007	
	thousand ha	%	thousand ha	%	thousand ha	%
Total	14,242	100.0	12,408	100.0	11,456	100.0
Grains	8,531	59.9	8,814	71.0	8,353	72.9
Wheat	2,281	16.0	2,635	21.3	2,112	18.4
Rye	2,314	16.2	2,130	17.2	1,316	11.5
Triticale	562	3.9	695	5.6	1,260	11.0
Barley	1,174	8.2	1,096	8.8	1,232	10.8
Oats	747	5.2	566	4.6	583	5.1
Grain mixtures	1,169	8.2	1,478	11.9	1,505	13.1
Potatoes	1,835	12.9	1,251	10.1	570	5.0
Sugar beets	440	3.1	333	2.7	247	2.1
Rape seed	500	3.5	437	3.5	797	7.9
Fodder crops	2,342	16.4	913	7.4	866	7.6
Field vegetables	255	1.8	248	2.0	217	1.9
Other crops	339	2.4	546	4.4	406	3.6

*Source:* Author's elaboration according to Geografia rolnictwa Polski 2007.

As of late, the area growing potatoes is only one quarter of the area in 1960. The spatial differentiation of potato cultivation has also changed. The areas formerly showing a marked importance of potato growing in the east-central part of Poland and in East Wielkopolska have now disappeared, and their place has been taken by the south-east.

A favourable change in the area sown is the increase of crops of greater value in feeding livestock (like triticale and mixed cereal) at the expense of rye and oats.

Among the industrial crops, sugar beet and rape play very important roles in Poland. The last 17 years have seen a gradual fall of the area under sugar beet. As of 2007 rape is grown on some 800 ha and its cultivation since 2000 has grown almost twice. Tobacco (some 10 thousand ha) was being grown mainly in the upland of Lublin and to the north-east of Cracow.

The field cultivation of vegetables was taking place on some 1.9% of all cropland and was concentrated in the zones around big agglomerations, especially Warsaw and Cracow as well as in the valley of the Vistula river.

The data from the 2002 Agricultural Census show that just 6300 ha of Poland were devoted to the cultivation of vegetables under cover. Nevertheless, the crops in question are of importance, since they supply consumers with much needed vitamins and microelements in the winter period.

Average cereal harvests in the years 1986–1990 had accounted for 26.1 million t and declined to 23.2 million t in the years 1991–1994 (the beginning of the transformation period). In the last several years the cereal production increased to about 27 million t.

In potato production one can observe a marked fall from 36.1 million t in the years 1989–1990 to 14.6 million t in 2001–2005 and 11.8 million t afterwards.

The harvest of vegetables (5.5–6.0 million tons) do not show bigger in the last few years, while the production of fruits from trees have risen from 1.8 million t in the years 1990–1995 to 2.8 million tons in 2001–2006.

### **Livestock raising**

According to the 2002 Agricultural Census, not quite half of all agricultural land was devoted to activity connected with livestock production. In 2007, the division of livestock raising accounted for 44.7% of global output, and for 56.7 of the output of commercial agricultural production. Animal breeding is dominated by the two branches of cattle- and pig-rearing. Poultry breeding for meat and eggs also plays a major role.

The last quarter-century has brought a deep fall in the number of heads of livestock in Poland, mainly cattle and sheep. There was also a decline in the number of large livestock units (where 1 unit = 500 kg) per 100 ha of farmland.



As of 2007, there were 45% as many cattle as there had been in 1980. Such a large fall in the national cattle herd reflected a marked reduction of cattle breeding on small farms, as well as the liquidation of state farms post-1990. A next underlying factor was the declining profitability of the small herds capable of being maintained on small holdings. Nevertheless, cattle still remained present on 48% of holdings covering more than 1 ha, and individually-owned farms supported 96% of the total national herd of cattle. A region of the particularly intensive raising of cattle in Poland, which has only taken shape in the last 20 or so years, is the western part of Podlasie voivodship.

The second very important branch of livestock production in Poland involves pigs. As of 2007, pork accounted for 11.8% of gross output and 15.9 % of commercial agricultural production, This represents a dominant 55% share in the country's overall production of meat that year. The size of the national herd of pigs has fluctuated markedly, but its reduction was much more smaller. Furthermore, the differences in numbers of pigs from region to region were great as of 2002 The numbers of pigs per 100 ha of agricultural land varied from 1–2 in the vicinity of Warsaw specialising in market gardening, through 15–20 in the foothill areas of the Carpathians, up to 230 in Wielkopolska and the Kujawy region. Record stock levels of between 800 and 1000 were in turn present on some of the gminas of Wielkopolska.

After cattle- and pig-raising, a very important branch of livestock production in Poland is that connected with poultry. The share this branch takes in overall commercial output of livestock increased from 13.3% in 1990 to 15.1% in 2007. The major role where the poultry breeding is concerned is assigned to hens, which represent 80% of all birds kept.

Sheep breeding was virtually completely discontinued (decrease from 4.2 million heads in 1990 to 362 thousand in 2007).

### **Commercialisation, land and labour productivity**

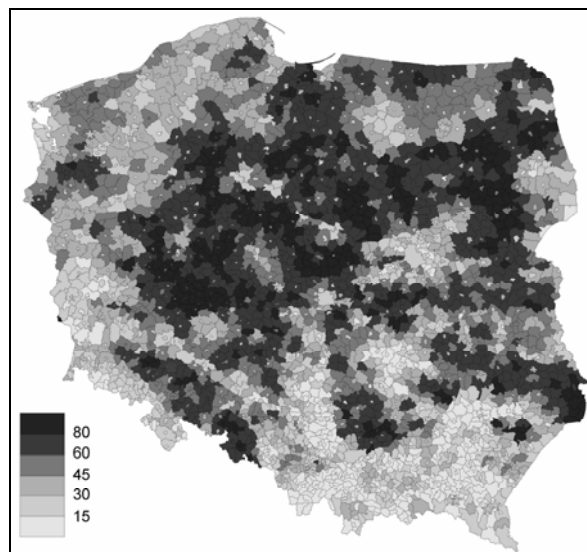
The degree of commercialisation, i.e. the share of commercial production in total gross output declined from 62.5% in 1990 to 50.1% in 1995, albeit with subsequent rise back to 70.5% by 2007. This marked decline in commercial production of agriculture reflected the crisis accompanying the onset of economic restructuring at the beginning of 90s, as well as the closure of the state farms, whose indices were much higher than on individually-owned holdings. The great growth of the degree of commercialization was noted after Poland became a member of EU and was connected to the big increase of export of Polish food product do West European countries.

According to the 2002 Agricultural Census, around 2/3 of individually-owned farms in Poland were supplying the market with their putput, but a mere 6% of farms could be classed as highly commercial. The main concentrations of such commercially viable farms were in Wielkopolska, Kujawy, Żuławy and certain gminas in Podlasie. At the same time 10.6% of all farms, located mainly in the south-east were producing solely for their own need, with no surplus being sold on the market (*Figure 3*).

The value of commercial and gross agricultural production per unit of agricultural land, are presents in important indices of socio-economic efficiency of land use (*Kulikowski, 2002*). As of 2006, their national average value of commercial production measured in zlotys per 1 ha of agicultural land (level of commercialisation) reached 2876 zł. (about 1200 USD at that time). The spatial differentiation of this index across the country ranged from 1686 zł in the Podkarpackie Voivodship where its level was the lowest, to 4963 zł in Wielkopolska, where its value was the highest (*Figure 4*).

Figure 3

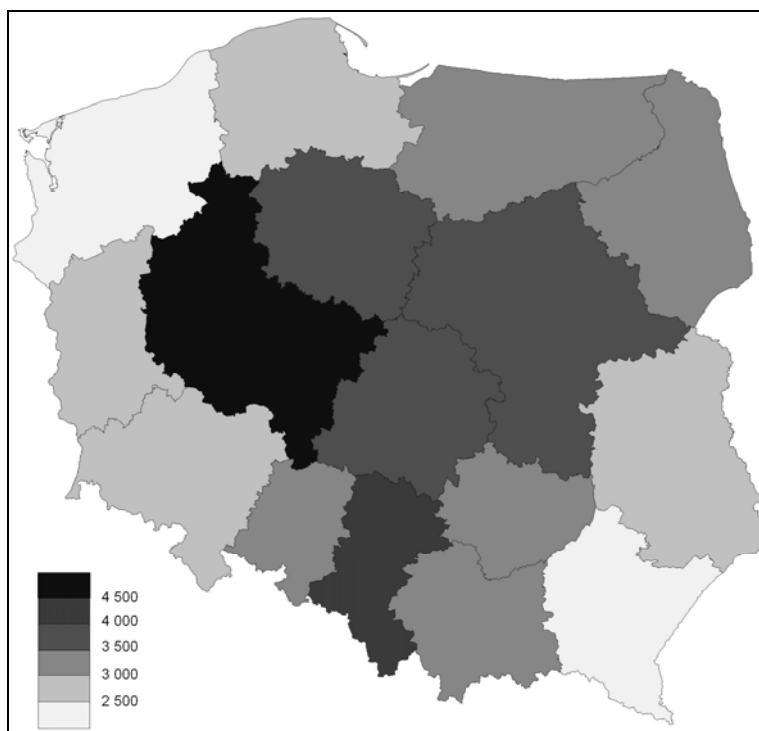
*Percentage share of individual farms with the high value (over 50 000 zlotys) of commercial agricultural production in the total number of individual farms, 2002*



Source: Author's elaboration according to *Geografia rolnictwa Polski 2007*.

Figure 4

*Value of commercial agricultural production in PLN per hectare of agricultural land, 2006*



Source: Author's elaboration according to Geografia rolnictwa Polski 2007.

The national value of agricultural gross output measured in zł per 1 ha of agricultural attained the value of 4,079 zł (nearly 1800 USD) in 2006. There are historically conditioned regional differences in the levels of agricultural development and in the values of land productivity in Poland. High levels of land productivity characterised Greater Poland (Wielkopolska), Kujawy and Lower Silesia, as well as agricultural suburban zones of big agglomerations with specialization in horticulture. The lowest level of the index mentioned was noted in central and eastern provinces where small-scale individual holdings dominate and part of them are subsistence farms.

Another important measure of agricultural efficiency is the value of agricultural production per person actively employed in agriculture. In the study here reported labour productivity is shown through the value of gross agricultural production in zł per person fully employed in agriculture. In 1999 the index attained 14,355 PLN.

The spatial differentiation of this index is closely connected with the size of farms, the level of education of farmers, the level of mechanisation, as well as the degree of specialisation in agricultural production.

### Conclusions

Polish agriculture is diversified across space due to natural conditions and historical past. Stagnation or even regression of agricultural production had been brought about by the technological backwardness of this sector of the economy and the worsening profitability of agricultural production at the beginning of 90s. Further processes of transformation of Polish agriculture are, however, unavoidable, although they will be significantly distributed over time, and connected with Polish EU-membership after 2004. Inclusion into EU agricultural policy and the liberalisation of agricultural trade with this group of countries may in the future be a factor of development of agricultural production (*Poczta*, 2008). Nevertheless, according to *Woś* (2001) besides certain benefits, which are promised by integration, at the same time it demands certain real concessions, such as the loss of national independence, broadening the range of risks and social fears of the unknown future.

The hope for the resolution of these problems resides not so much in agriculture itself as in the remaining links of the food economy, which, following the model of the Western European countries, ought to form in time a food system chain united by the common interest, rather than a set of isolated links. The present Polish food economy is characterised by too high employment in agriculture and too high percentage of agricultural production in the total value of production of this sector.

### References

- Bański, J. (ed.) 2007: *Geografia rolnictwa Polski* (Geography of Polish agriculture). Warszawa, PWE.
- Głębocki, B. (ed.) 2005: *Struktura przestrzenna rolnictwa Polski u progu XXI wieku* (Spatial structure of Polish agriculture at the begin of XXI century). Poznań, Bogucki Wydawnictwo Naukowe.
- Kulikowski, R. 2002: Przemiany i zróżnicowania przestrzenne produkcji rolnej w Polsce (Changes and spatial differentiation in Poland's agricultural output). *Przegląd Geograficzny* 74, 3, pp. 407–423.
- Kulikowski, R. 2005: Rolnicze użytkowanie ziemi w Polsce w świetle wyników PSR z 2002 r. (Agricultural land use in Poland in the light of Agricultural Census 2002). Głębocki, B. (ed.), *Przemiany struktury*....op.cit. pp.159-192.
- Orłowski, W. 2001: Makroekonomiczne uwarunkowania rozwoju rolnictwa polskiego w długim okresie (Macroeconomic conditioning of the development of Polish agriculture in the long term perspective). *Więś i Rolnictwo*, 2 (111), pp. 19–27.

- Poczta W. 2008: Wpływ integracji Polski z Unią Europejską na sytuację ekonomiczną sektora rolnego w latach 2004–2006. (The influence of Poland's integration with EU on the economic situation of Polish agriculture in 2004–2006). *Wież i Rolnictwo*, 1, (138) pp. 19–33.
- Woś, A. 2001: Nowy wymiar uwarunkowań rozwoju polskiego rolnictwa (New dimension of development conditions of agriculture in Poland). *Wież i Rolnictwo*, 3 (112), 28–40.
- Zegar, J. 2001: Dylematy dochodowe rolnictwa chłopskiego na przełomie XX i XXI wieku (Income dilemmas of peasant agriculture at the turn of the 21<sup>st</sup> century). *Wież i Rolnictwo*, 2 (111), 106–120.

# INTERNAL PERIPHERIES OF SOCIO-ECONOMIC DEVELOPMENT IN POLAND

KONRAD Ł. CZAPIEWSKI – KRZYSZTOF JANC

## Introduction

According to *Luger and Maynard* (2008, 29.) regional economic development is “*efforts to enhance employment, income, wealth, and/or opportunity within a defined geographic areas (...); it is an outcome, equated to a better quality-of-life for citizens (...) that means a more vibrant social and cultural milieu, financial security, physical health and well-being, and a sustainable environment*”. Such definitions correspond to the term „socio-economic development” used in this article, simultaneously taking into account social, economical, infrastructural, environmental and spatial conditions of development.

An important aspect of the contemporary socio-economic processes is constituted by their close association with concrete location and its features, and shaped by it – local, unrepeatable resources. The territorially rooted, specific properties of some locations predestine them to play the role of leaders – the engines of regional development. The character and course of regional development processes is outlined by growth conditions and activity factors that may be defined as development potential.

Regional disparities, in terms of the level of socio-economic development, are getting uncovered in the majority of spatial analyses conducted for individual countries or for smaller administrative units. In the studies carried out for the entire Europe, the reference units are either regions (NUTS 2) or subregions (NUTS 3), such as, for instance, in the studies of ESPON (European Spatial Planning Observation Network). The adoption of these large units showcases their significant internal diversity, reflected, in particular, through the attainment of high values by the deviation indicators for the attributes analysed. The high degree of heterogeneity of the considered regions causes important loss of information through averaging of the phenomena studied, so that the image obtained does not fully reflect the actual reality.

The intraregional differences are an increasingly significant planning and research issue. The inner diversity of regions is also important as, apart from the region’s power, it is its structure that maintains reasonable relations between centre and periphery.

It should, however, be clearly emphasised that the issue of the regional polarisation of the country is a universal phenomenon and is in a way natural. The functioning of the inner development boundaries is an unavoidable phenomenon in a free market economic system. Owing to the regional differences, development takes place, since the differences constitute the stimulating factor of progress. Yet, the differences between the regions cannot take on very big dimensions, since then the transfer of technology and innovation is in practice impossible and the relations between the respective regions become even more disproportionate. In this context, it is more important to conduct an appropriate development policy for the core and peripheral areas than to attempt the complete evening out of socio-economic differences – spatial effectiveness or spatial equity. The former model assumes the increase of regional differentiation, but with emergence of cores and centres of growth capable of more effective use of means and more effective competition on the European scale. On the other hand, in the latter model larger emphasis is placed on the evening out of the development differences and the inflow of more funds to the less developed regions. Both the obtained results and the course of the contemporary development processes as well as the policies implemented show the domination of effectiveness over equity.

The main aim of the article is the presentation of internal borders and internal peripheries of socio-economic development. Taking into account the cited definition of socio-economic development, the intraregional differentiation of some selected features was shown – level of socio-economic development, infrastructure as well as human capital and migration. Spatial analyses was always done on the smallest administrative units – NUTS4 or NUTS5, which allow for the description of spatial differences being created within the regions. Additionally, an analysis of the influence of the distance from three selected regional centres – Warsaw, Wrocław and Szczecin – on values of the investigated features in the communes was conducted.

### **The intraregional boundaries in Polish space**

The influence exerted by the existence of a boundary on the socio-economic development of a country or of the regions constitutes a significant research and applied problem (see, in particular, *Rumley – Minghi*, 1991; *Komornicki*, 2003; *Krok – Smętkowski*, 2006). At least three kinds of boundaries, conditioning in an essential manner the level and the direction of economic development, can be distinguished in the space of Poland:

- *political boundaries* with the neighbouring countries – closeness of location may have a stimulating impact on the development (e.g. Euroregions, cross-

border trade, Schengen zone – the so-called significantly and fully permeable boundaries, according to the study by *Ciołk* [1990]), or a hampering impact (lack of trade and local authority connections, passport and customs hindrances – the so-called impermeable or only partly permeable boundaries, according to *Ciołk* [1990]); the first kind of boundaries applies, first of all, in the case of regions bordering upon Germany (numerous joint transboundary projects), as well as those bordering upon Czechia, Slovakia and Lithuania; the second type of boundaries applies to the areas bordering upon Belarus', Russia (the Kaliningrad District), and Ukraine;

- *historical boundaries*, connected with the 19<sup>th</sup>-century partition of Poland into three parts, belonging to Russia, Austria and Prussia, and the shift of the political boundaries after the World War II; during the 19<sup>th</sup> century the essential socio-economic structure of the country took shape, owing to the development of industry, construction of railways, urbanisation and structural changes in farming; within each of the three parts different legal systems were in force, and the political relation to the territories administered differed, so that also nowadays, with respect to many cultural, social, infrastructural or economic aspects, distinct boundaries resulting from the 19<sup>th</sup> century partitions are visible;
- *intraregional boundaries*, defining the zones of the weakening influence of the large urban centres; these boundaries coincide to a definite degree with the administrative boundaries of provinces, but their existence is linked with distance, or, more precisely, with spatial accessibility of a given area to the growth centre of the region; the boundaries of this type, rather than being lines, take the form of belts or zones; two examples, from the domain of demography and the economic-infrastructure domain are provided in order to illustrate the existence of the intraregional boundaries.

### *Socio-economic development*

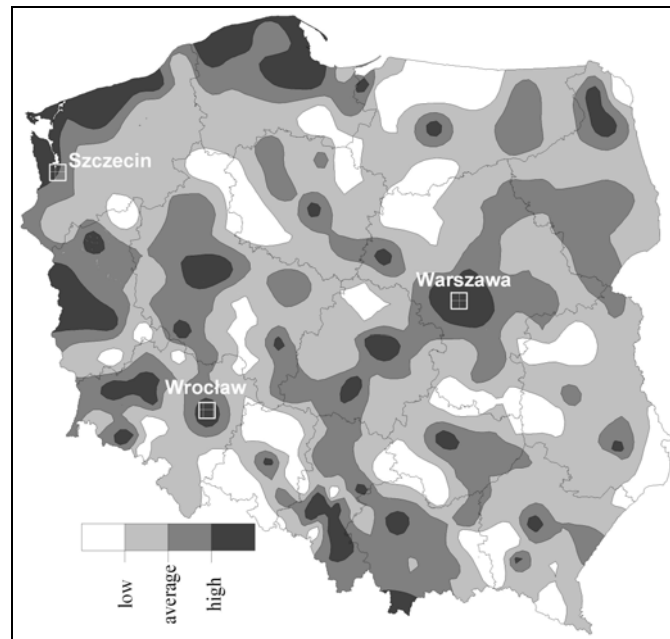
In case of socio-economic potential, the division of Poland into a core and periphery scheme revealed the most clearly visible differences. Definitely the highest development potential characterises the largest cities and their suburbia (*Figure 1*). It is an understandable and typical spatial scheme that is met by regional development analysis not only in Poland. Cities presently concentrate the greatest development potential and have or rather should have exogenous functions for surrounding areas. Such situations do not always occur. In case of large agglomerations, one may point at their suburbia that are characterised by high potential. However, smaller units, especially towns located in the eastern part of the country, are not so strong as to stimulate the development of neighbour areas. And it is



counties from eastern Poland that are characterised by the weakest development potential. This is a result of many factors such as history (Russian rule during XIX century), the mono-functional structure of economy based on agriculture and the aforementioned lack of strong urban centres. The Warsaw agglomeration, with its very high development potential, has an exceptional position in Central and Eastern Poland. However, already in the distance of about 50 km from the Polish capital, the peripheral area begins in terms of development potential begins. The remaining areas of the region are characterised by a much lower development potential and in principle do not gain any advantage from the fact of being situated in the province of Mazovia (the wealthiest region in Poland, with the highest values of GDP per capita and the highest rate of socio-economic growth). Therefore, the distance in development between the area of agglomerations and the region outskirts is significant. Areas with developed tourist functions also have high potential – the sea-side belt, lake regions and some mountain areas in the south of the country.

Figure 1

*Counties by synthetic index of socio-economic development potential & location of three selected regional centres*

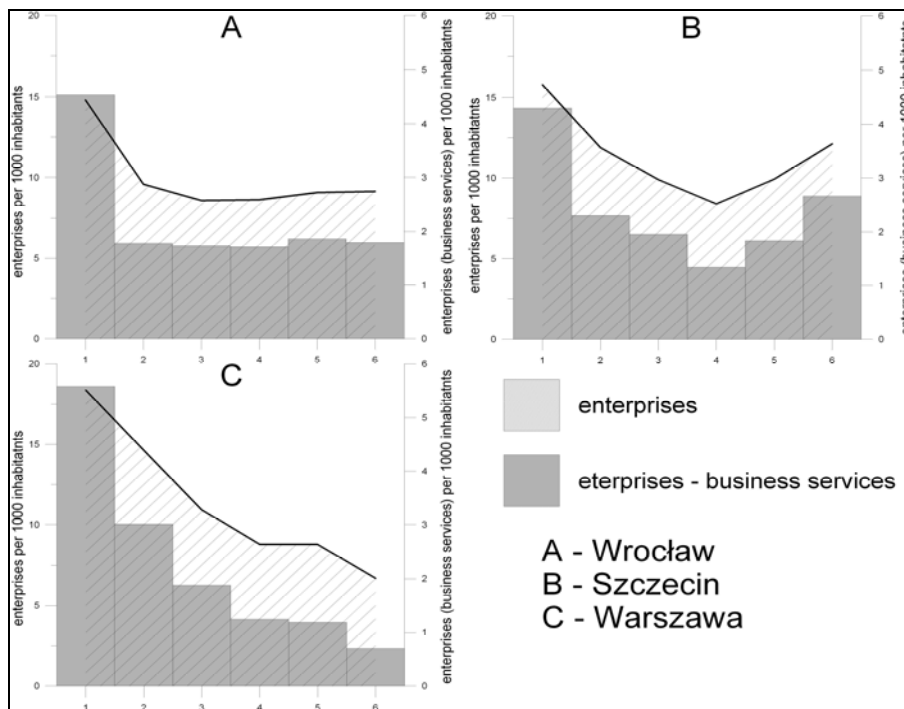


Source: Authors' own construction.

Taking into account the level of entrepreneurship of people and the number of business service entities, there are visible differences between the three selected centres and their surroundings (*Figure 2*). Wrocław is characterised by very significant decline between the city and the first zone, but simultaneously all other zones have similar values. In the case of Szczecin, the decrease of values is gradual and from the fourth zone, increase is observed. In the case of Warsaw, the decrease is visible in all zones, but it has to be underlined that values of entrepreneurship levels in the first zone (communes bordering on Warsaw) are very large compared to the other two cities. In the Warsaw agglomeration, the most distant 6<sup>th</sup> zone has the lowest value among all investigated zones of the three cities, confirming that Mazovia is the most polarised region in Poland. A common characteristic of all analysed cities is the appearance of distinct borders between centres and peripheries, but what is interesting in all cases is that borders occur with different intensity and in different distance from the centre.

Figure 2

*Total and “business services”; number of enterprises in the zones around three selected regional capitals*



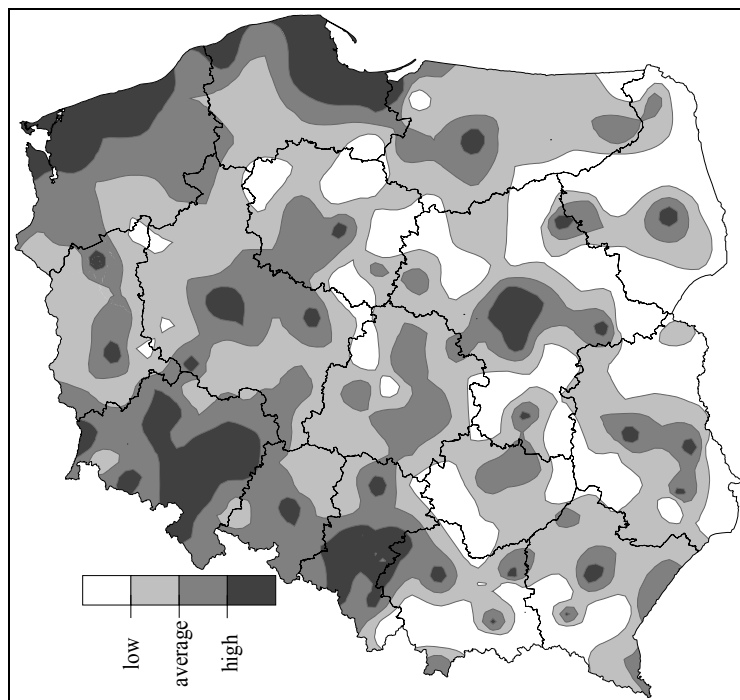
Source: Authors' own construction.

### *Infrastructure*

On the basis of the synthetic indicator of the level of infrastructural development it can be stated that there exists a broad belt of communes, featuring distinctly higher values of this indicator (*Figure 3*). Besides, one can clearly see that the suburban zones of larger cities also feature higher values of this indicator. Similarly, around the remaining cities of more than 100,000 inhabitants, concentric zones can be seen with the indicator values of the infrastructural and economic development higher than the national average. On the other hand, the areas with distinctly lower values of the indicator analysed are constituted by the municipalities from the provinces in Eastern and Central Poland (*Czapiewski, 2004*). A better situation in the suburban municipalities corresponds to the frequently determined directions of diffusion of the development impulses in space in Polish conditions. This diffusion, namely, takes primarily place from the west towards the east, from the large urban centres to the surrounding regions, as well as along the main transport routes (*Węclawowicz et al, 2006*).

Figure 3

*Indicator of the infrastructural development of the Polish municipalities*



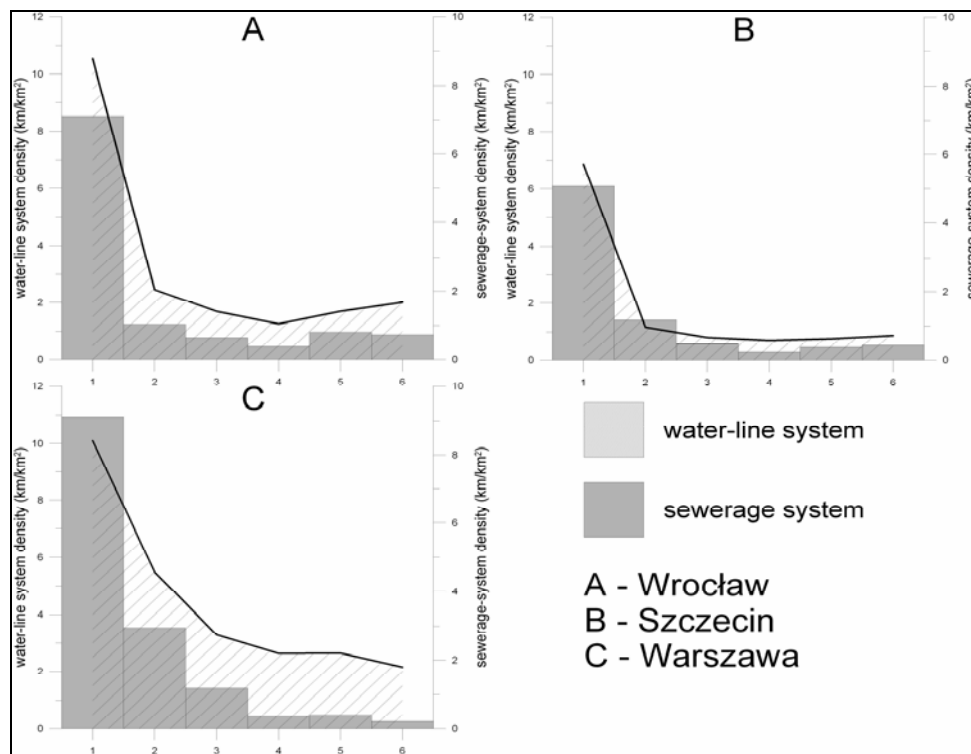
Source: Authors' own construction.

The obtained spatial pattern refers to a large extent to the core-and-periphery theory, whose foundations have been laid by F. Ratzel, and which was thereafter developed by J. Friedmann, as well as to the concept of the polarised region of J. R. Boudeville. The spatial differentiation of infrastructural supply in Poland displays a high degree of correlation with the level of economic development. So generally, the presence of infrastructure is much worse in the poorer regions of the country – first of all in its eastern part. These areas feature a high degree of rurality and a high significance of agriculture in the local economy and employment structure.

During the analysis, the density of different kinds of infrastructure networks in concentric zones around the three selected cities, as well as large disproportions between centre and surrounding can be noticed (*Figure 4*). This is well understandable, when it is taken into account that together with the increase of distance from the centre, there is a decrease of density of population.

Figure 4

*Density of water and sewage system in the zones around three regional capitals*



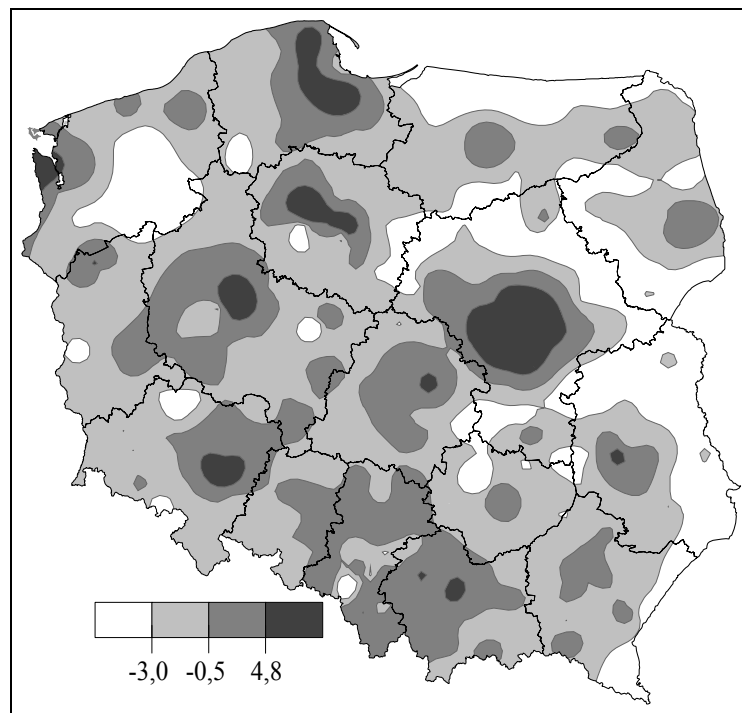
Source: Authors' own construction.

### *Human capital and migrations*

The analysis of the phenomenon of migration allows for the determination of very important processes of transformation in spatial structures. The areas featuring significant population loss are concentrated in the outer zones of the regional peripheries –situated in the border zones between the provinces (*Figure 5*). These municipalities are situated at a far distance from the economic centres of the particular provinces, which causes that the development impulses, originating from such centres do not reach the distant areas. In effect, important outflow takes place from these areas, usually to the largest cities or towards their direct neighbourhoods. It is exactly the suburban areas around the regional centres that featured the highest population increase and one should expect the continuation of this process in the future. The increase of population numbers was also characteristic for the regions of Małopolska and Kaszuby –areas of traditional social structure featuring relatively high natural increase.

Figure 5

#### *Migration balance in Poland*



Source: Authors own construction.

If we look at population migrations in absolute figures, an interesting image of Polish space appears. The majority of rural municipalities in Poland have been characterised in recent years by a small – in absolute terms – negative balance of migrations between 0 and 40 persons a year. On the other hand, a handful of communes (some 125 units – 6% of the total), concentrated around the biggest development centres, were characterised by the migration-related increase of more than 100 persons a year. These values confirm the previously indicated process of population concentration in the urban complexes, taking shape and encompassing the towns along with their suburban zones.

The largest negative migration balance is observed in the areas situated outside of the sphere of influence of the largest towns in North-Eastern Poland. Intensive outflow of population from areas of rural character takes place there. In the part of Poland considered this is quite a significant problem, since poor perspectives of getting a job in the countryside, associated with the lack of (or, rather, poor use made of the existing possibilities) the sources of subsistence alternative to farming, is linked with high shares of rural population. At the same time, inflow to towns is not compensated for in these cases by the outflow of the urban population.

The highest education levels are observed within the areas situated in the vicinity of large urban centres, especially regional capitals, the least advantageous situation exists in the areas between such zones (*Figure 6*). Two disadvantageous kinds of conditions coincide on these areas: low accessibility to the establishments of tertiary education in larger cities and a lack of such establishments in place.

The co-presence of universities and great share of people with higher education is observed clearly, as confirmed by the percentage of people with higher education in all localities in Poland that are the academic centres (15.4%). The value of this rate for the rest of the country amounts to 6.1%. The concentration of the schools and people with higher education in the main academic centre occurs in all presented areas. In the majority of cases, there is a drastic decrease in the share of people with higher education. The presence of the next academic centres in the following concentric spheres causes a simultaneous increase of this rate.

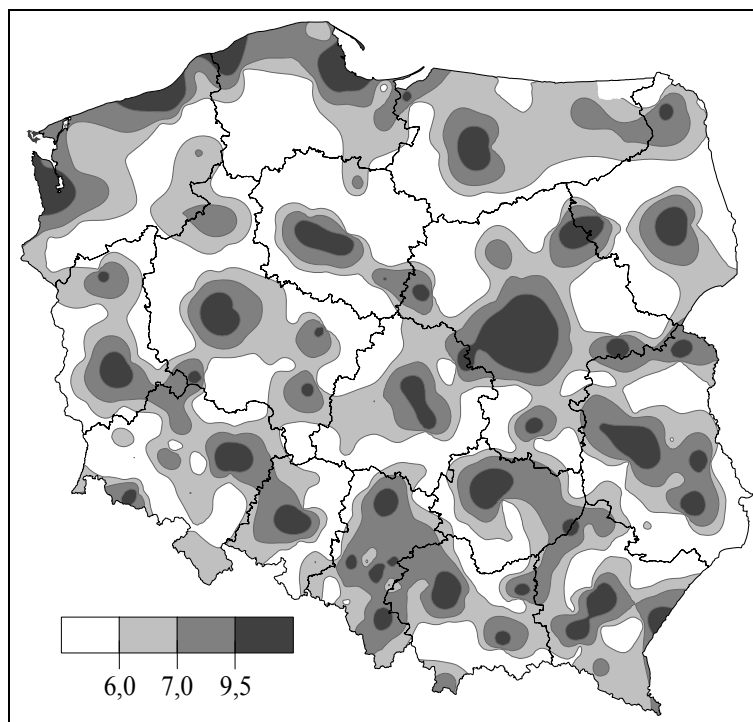
It is interesting to observe the gradient of the decrease in share of people with higher education with the increasing distance to the academic centre. As far as the surroundings of Warszawa are concerned, one observes a slow fall in education level, while in the neighbourhood of Szczecin and Wrocław there are the greatest differences between the central unit and the closest sphere of communes (*Figure 7*). In these cases the average value of the share of people with higher education is similar to the value for the whole area around an academic town already in the second sphere. It means that the spatial influence of these centres to the surrounding areas is scarce.

## Conclusions

The intraregional boundaries differentiate a given area between the parts characterised by more and less advantageous socio-economic, infrastructural and demographic-migration conditions. These boundaries, though, do not form precisely defined lines, and their distance from the core centre depends upon the phenomenon analysed. Besides, in many cases the level of development of a commune decisively depends upon the specific local conditions, such as the entrepreneurship of the inhabitants, that is, a number of endogenous development conditions. There are, additionally, numerous phenomena which do not have a spatial aspect, or their appearance depends upon many other variables, such as, for instance, the quality of the natural environment. Yet, as one analyses a definite group of issues – especially those associated with the economic sphere – the development of the internal peripheries of development becomes visible.

Figure 6

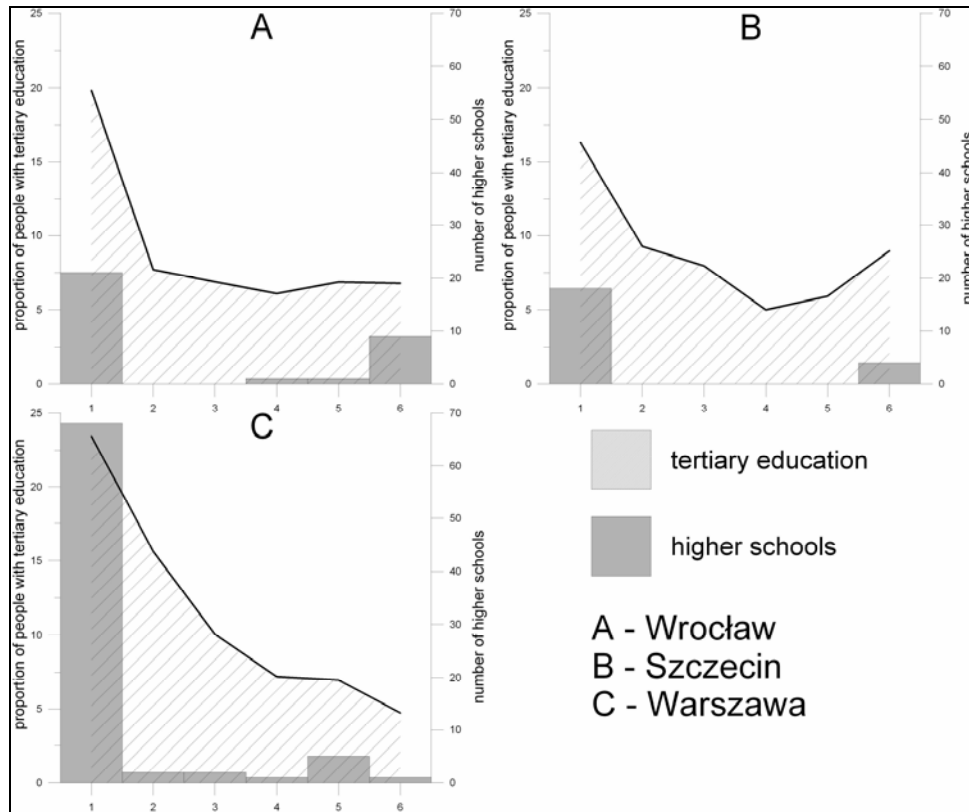
*Shares of population with higher education in Poland*



Source: Authors own construction.

Figure 7

*Share of people with tertiary education and number of higher schools in the zones around three regional capitals*



Source: Authors' own construction.

Paying attention to this question is important for three reasons: (1) it is commonly held that the peripheral regions are the ones situated along the national boundaries; (2) the analyses conducted at the level of large regions neglect the aspect of internal differentiation; (3) the implemented regional policy has to contain appropriate development strategies for the areas from the inner peripheries.

The obviously appearing core-periphery scheme carries serious implications. From respect, the establishment of metropolises that focus well-educated and venturesome people should enable some Polish areas to compete at international level. Great urban centres may be a motivating force for the whole country's growth. However, on the other hand, the increase of intra-regional diversity is evident. Its



further progress may result in the establishment of ‘enclaves of poverty’ in some areas.

Evident split into large cities that are characterised by the greatest development potential and into remaining areas is undoubtedly a confirmation of the worldwide process of polarisation in socio-economic space. The consequently appearing core-periphery scheme carries serious implications. From one respect, the establishment of metropolises that concentrate well-educated and entrepreneurial people, are well equipped in infrastructural outfit, and have high economic indicators should enable Polish regions to compete at the international level. Great urban centres may be a motivating force for the whole region’s growth. However, on the other hand, the process of increasing intra-regional diversity is evident. Therefore, the establishment of strong centres at peripheries’ costs is a serious challenge for regional development policy. It is essential for the region to be a unified, functionally coherent area, and, therefore, that the development of cities should be accompanied by the development of their surroundings.

The obtained results highlight the repetition of the proposition formulated earlier, namely that at least under Polish conditions (although the same can be said for the majority of the countries of Central and Eastern Europe), it is necessary to elaborate appropriate development plans and strategies for the areas of inner peripheries, which, being significantly removed from the centres of the socio-economic development, and characterised to a large extent by monofunctionality, associated with farming, can rely in their development only on the endogenous factors; these factors, in the majority of cases, remaining at a very low level.

The existence of areas with high or low potential does not predispose to the role of the leaders or outsiders. Development potential that *ex definitionem* characterises development abilities and possibilities, does not always have to be used properly. The abundance of exogenous and endogenous factors that affect socio-economical processes may lead to the hindrance of growth in areas with high potential and in the same time may stimulate the development of weaker regions. Hence there is a necessity of reasonable and effective actions of decision makers. Actions that will enable multifunctional development based on the full use of existing potential and on a possibly permanent increase in its quality in all areas – currently weak and strong. Only constant improvement of scores and equal development of all potentials causes that the given area may be called the basis of success.

## References

- Ciok, S. 1990: Problematyka obszarów przygranicznych Polski południowo-zachodniej, stadium społeczno-ekonomiczne [Socio-economic problems of south-western borderlands of Poland]. *Acta Universitatis Wratislaviensis*. 1155. (in Polish).

- Czapiewski, K. 2004: Zmiany warunków życia ludności wiejskiej [Changes in the living conditions of rural population]. *Studia Obszarów Wiejskich*. 6. pp. 89–111. (in Polish).
- Komornicki, T. 2004: *Przestrzenne zróżnicowanie międzynarodowych powiązań społeczno-gospodarczych w Polsce* [The spatial differentiation to international social and economical linkages in Poland]. Warszawa: Institute of Geography and Spatial Organization PAS. (in Polish).
- Krok, K. – Smetkowski, M. (eds.) 2006: *Cross-border Cooperation of Poland after Enlargement. Focus on Eastern Border*. Warszawa, EUROREG.
- Luger, M. I. – Maynard, N. C. 2008: On the government's role in regional economic development. In: Martinez-Vazquez, J. – Vaillancourt, F. (eds.): *Public Policy for Regional Development*. New York, Routledge. pp. 28–46.
- Rumley, D. – Minghi J. 1991: *The Geography of Border Landscapes*. London, Routledge.
- Węclawowicz, G. et al. 2006: *Przestrzenne zagospodarowanie Polski na początku XXI wieku* [Spatial Organization of Poland at the beginning of the 21st century]. Warszawa, Institute of Geography and Spatial Organization PAS. (in Polish).

# **SOME FACTORS OF DEVELOPMENT OF THE UNDERDEVELOPED BORDER COMMUNITIES IN VOIVODINA (SERBIA)**

**IMRE NAGY – ROMELIĆ JOVAN**

## **Introduction**

The regional policy of the European Union strives, in principle, to direct its activities onto the elimination of differences in development between the Member States and regions in Europe. Having in mind financial solidarity, it directs the contributions of the Member States into the least prosperous regions in order to provide support aimed at the elimination of economic and social differences between regions and the approximation of GDPs per capita in regions that are lagging behind the European Union average.

A significant item within this policy is the assistance provided to the border regions within the EU, as well as on the periphery of the EU, which means that border regions of the EU neighbouring countries also enter the circle of regions eligible for funding. This financing is justified with the fact that border regions are often in a poor economic position, distanced from economic centres, with poor infrastructure, deprived in the economic sense, and also that national borders are the obstacle for balanced and integrated development of Europe (via language barriers, legal and cultural differences). That is why the realisation of economic and social cohesion, the balanced and sustainable development of the territory of Europe as well as territorial integration with the neighbouring countries is indisputable.

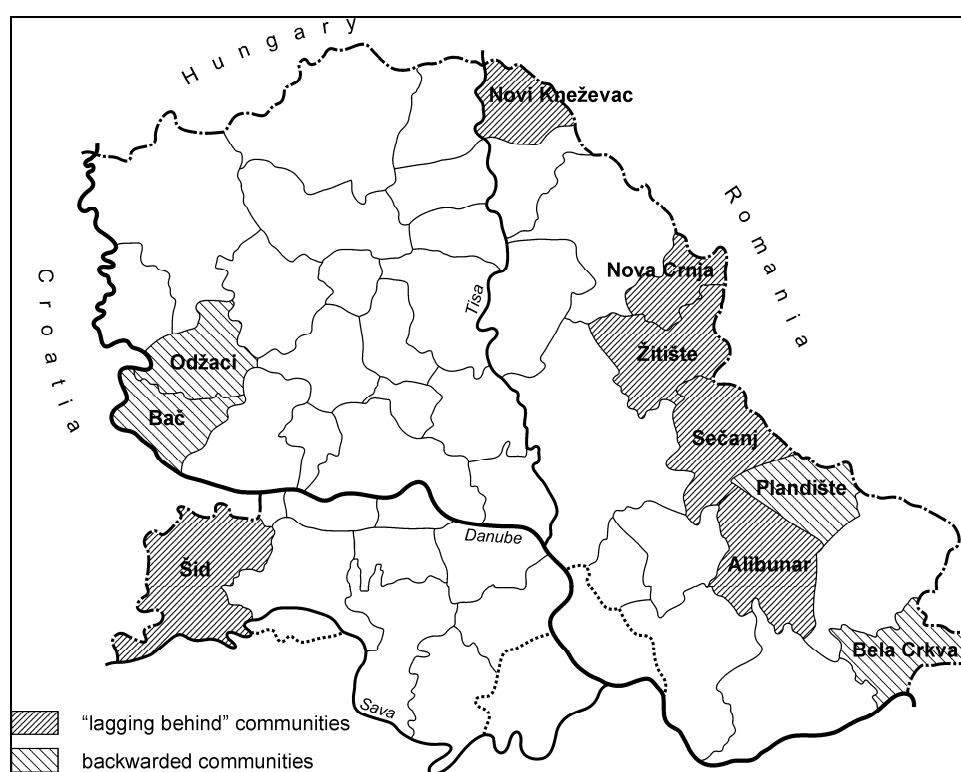
## **Underdeveloped and insufficiently developed municipalities in Voivodina/Serbia**

According to the criteria of economic development, underdeveloped municipalities in the Autonomous Province of Voivodina in 2009 are: Bač and Odžaci toward Croatia, and Plandište and Bela Crkva toward Romania. According to the criteria and measured by indicators, insufficiently developed municipalities in border areas of the Province in 2009 are: towards the Croatian border – Šid, towards the Hungarian and Romanian border – Novi Kneževac, towards Romania – Nova Crnja, Žitište, Sečanj and Alibunar.

According to the criteria of employment, measured by indicators and conditions of the Decision on Criteria, undeveloped municipalities in the Province, in 2009, are: towards the Romanian border – Nova Crnja. On the other hand, undeveloped municipalities are: towards Croatia – Odžaci, and towards Romania – Mali Idos, Žitište and Bela Crkva (Figure 1).

Figure 1

*Underdeveloped (backwards) and insufficiently developed (“lagging behind”) communities in Voivodina Province*



Source: Statistical Yearbook of Serbia. Municipal Review, 1997–2007.

### **INTERREG IIIA (CARDS, PHARE) experiences in cross-border cooperation, with special regard to underdeveloped border villages of the Voivodina region**

In the 2004–2006 period, in the framework of the EU-supported neighbourhood programmes, the underdeveloped villages in the Hungarian-Serbian and the Hungarian-Romanian border regions were eligible for support. With regards to the fact that the whole territory of Voivodina was eligible in the framework of the Hungary–Serbia Neighbourhood Programme as it was the only administrative territorial unit between the local (municipality) and national level, all backwards regions were eligible for this support. The eligible areas of the Neighbourhood Programme of Romania with Serbia (-Montenegro) were communities (opština) of the following districts in Voivodina and Central Serbia: Severno-Banatski (Northern Banat), Srednje-Banatski (Central Banat), Južno-Banatski (South Banat), Braničevski and Borski.

#### ***Neighbourhood Programme Hungary-Serbia (Montenegro) 2004–2006***

The comparison of the two Calls of the Neighbourhood Programme (February 2005, August 2006) indicates in general that the circle of potential and actual applicants did not change significantly for the 2nd Call. A higher number of selected proposals (almost one-third of the supported projects) were joint ones showing that the level of co-operation between the two sides was increasing. Unfortunately there were only two underdeveloped borders villages that were awarded support in the two turns of the tender: Novi Kneževac and Odžaci (2–3 projects).

#### ***Neighbourhood Programme Romania-Serbia 2004–2006 – Examples for tourism co-operations in the symmetric border region of Romania and Serbia***

Cooperation in the field of tourism, the organised development of which started in the framework of the Danube–Cris–Maros–Tisa Euroregion, has substantially expanded both in content and in space since 2004.

A tourism project covering the whole of the Banat region was launched, titled “The development of cultural tourism in the Banat – a cross-border challenge”. The almost one-year project, whose objective was the management and tourism utilisation of the cultural heritage in the historical Banat region, was financed by the European Union. Bilateral participants were, in the framework of the Romania–Serbia Neighbourhood Programme, the Intercultural Institute of Timișoara, the CulTours and the Banat.eu associations from Romania, from the Serb side the Civil Parliament of Vršac and the European Movement from Zrenjanin (ERIC). A similar cooperation was established between the twin municipalities of Lugoj (Romania)

and Vršac, in the framework of which the objective to utilise the local and regional tourism potential was set. The concrete goal of the cooperation is the issuing of multi-lingual tourism publications, the creation of a tourism website, the placement of tourism information signs directing the visitors to the tourism attractions, but an essential part of the cooperation is the collaboration of the representatives of the offices as well.

In the project called Banat-22, the partner of the Timișoara institute is the city management of Pančevo (Serbia), its financing background is provided by the European Union, in the framework of the Phare CBC 2005 Romania-Serbia Neighbourhood Programme. The project has identified a total of 22 tourism objects and events in the Romanian and the Serbian Banat area, and features them as the distinctive units of the tourism sector of the Banat region. The objective of the project is to increase the main economic indices of the tourism industry of the Banat region by 5% (ERIC).

The “Support of rural tourism in the poorly developed border regions of Romania and Serbia” is the title of the project in the framework of which a tourism development centre is established in the Traian Vuia micro-region in Timiș county. The project was launched by two municipalities, Dumbrava in Timiș county and Totovo Selo in Voivodina, in cooperation with the municipalities around Făget in Romania, the development association of the Traian Vuia micro-region, the Padis Society in Făget, the tourism association of Kanjiža (Serbia) and the Iringó Environmental Association. The joint meeting was an occasion for the introduction of the analysis of the tourism potential and the tourism development and cross-border cooperation strategy of the Traian Vuia micro-region.

A broad cooperation has been created among the physicians of the baths of Băile Herculane (Romania) and the Rusanda medicinal spa in Melenci (Serbia). Also, the development of bilateral student and cultural tourism is planned in the framework of the further co-operations.

#### *Future support possibilities of the underdeveloped border villages*

##### National Funds incentives for underdeveloped municipalities

The funding of regional development and support system for underdeveloped municipalities in the present period is conducted by means of direct or indirect incentives realised by ministries and national funds. Since 2000, the most significant direct measures of government incentives have been realised through funds provided by the following institutions:

- Fund for the Development of the Republic of Serbia,
- Specialised Budget Funds,
- The Development Fund of the Autonomous Province of Vojvodina,
- Guarantee Fund,
- National Employment Bureau,

- Republic Agency for Small and Medium-Sized Enterprises and Entrepreneurship,
- Ministry of Agriculture, Forestry and Water Management,
- National Investment Plan,
- Local Funds
- Fund for the Development of the Republic of Serbia.

The Law on the Fund for the Development of the Republic of Serbia was enacted in 1992 with the amendments of economic, systematic and functional solutions, continuing the policy of material support with the aim of achieving steady regional development.

During the period 1994–2006, the Fund for the Development of the Republic of Serbia was giving financial support to 6,198 programmes in the area of economic and regional development.

The investments into underdeveloped areas doubled in 2006 compared to 2001 (2.9 million Euros was granted for 26 new programmes in 2001, and 5.2 million Euros for 106 new programmes in 2006). However, the activities of the Fund for the Development of the Republic of Serbia failed to accomplish one of its principal purposes, i.e. to grant the majority of support to the underdeveloped areas compared to other areas. Nonlinearity within the scope of funds utilisation is reflected in low participation of the underdeveloped in the total funding, which totalled 13.6% in 2001, and 14.2% in 2006. The outset for funding distribution of the Fund for the Development of the Republic of Serbia depended upon the number and quality of submitted investment programmes.

Compared to the period up to 1990, when the Fund for the Development of the Republic of Serbia granted 66% of the total sum for the underdeveloped municipalities, the period 2001–2006 reduced the funding to 20.1%. The reasons lie in the fact that up to the 1990s the incentives were awarded to the special programmes for underdeveloped areas (feasibility study, programmes, projects, investment and technical documentation, staff, etc.). However, since 2001 the programme readiness of the underdeveloped municipality has been imposed among the credit requirements. Therefore, the underdeveloped municipalities could not submit quality programmes due to the lack of professionals.

Fiscal politics has not valued the regional component especially with respect to the difficulties of regional development programmes. Nowadays, there are few regionally determined fiscal stimuli, whereas the process of fiscal decentralisation was conducted slowly for the five years following democratic changes. It was intensified only in 2006.

In order to fulfil the aim regarding the improvement of the circumstances for the attraction of investments and reduction of unemployment in regionally underdeveloped areas, the activities should be moving in two directions. The first direction

implies modification and improvement of the existing instruments, whereas the second direction implies the introduction of new instruments in fiscal policy highlighting the regional component. The following fiscal stimulus packages for acceleration of development in underdeveloped areas are available: production tax stimulus, employment fiscal stimulus package, profit fiscal stimulus package and investment fiscal stimulus package.

Credit Policy for regional development purposes has been conducted mainly through the Fund for the Development of the Republic of Serbia. It implied the funding of small and medium-sized enterprises and activities under conditions more favourable than the market ones, as well as the approval of micro-credits and credits for the unemployed who start new businesses. Incentives in this sector were highly important due to its restrictive access to bank credits.

The funds of the republic budget, local government budget and funds obtained from the international aid would be coordinated and directed for programmes of regional development. The funds intended for a steady regional development should be directed towards programmes and projects in the following areas: employment incentives, industrial infrastructure development (energy, telecommunications, transport), the development of social infrastructure (health and education), economic development (industrial zones, business parks, business incubators, innovative centres, information and consulting centres), environment protection and tourism development. Moreover, this strategy anticipates support to balanced development support for villages through the introduction of LFA (Less Favourite Areas) criteria.

Alongside the building of regional development institutions, it is necessary to continually direct financial support to underdeveloped areas, assuming favourable conditions. Apart from the support to the Fund for the Development of the Republic of Serbia, the support is necessary for the institutions indirectly supporting regional development, primarily the National Employment Bureau, the Guarantee Fund and the Agency for Development of Small and Medium-Sized Enterprises and Entrepreneurship.

Financial and technical support is necessary in the preparation of regional development plans as well as in building business incubators in cooperation with local governments.

International funding would be directed largely to underdeveloped areas in the following period. The highest importance would be assigned to the utilisation of donations for the approval of micro-credits, through banks and non-commercial institutions, for enterprises in underdeveloped areas.

Considering the fact that the countries in Central and Eastern Europe have achieved a low realisation of the total support of the European Union, it is necessary to enlarge institutional capacities of the ministries in charge and regional development agencies for the utilisation of IPA Funds. Thus, the Republic of Serbia



would have sufficient absorption capacity for the utilisation of the regional component within IPA Funds when it acquires a candidate country status.

### *EU support schemes*

The catching up of the underdeveloped border regions in the future and the relationship building with the border regions of the neighbour states are supported recently by the IPA Funds (2007–2013). This means that, in addition to the already mentioned Hungary–Romania and Hungary–Serbia neighbourhood programme a new border area is eligible for support: the border region of Serbia and Croatia.

#### *Croatia–Serbia IPA support framework*

The possibility of relationships building and cooperation of the two border regions is of outstanding importance, as there were serious conflicts in this region whose negative consequences can be considerably lessened by the support of this cooperation. The focus – first priority – of the support is on Sustainable Socio-Economic Development, whose tasks are as follows:

- to promote business cooperation, increase cross-border trade, develop labour market mobility, cross-border RDI and joint economic planning;
- to stimulate tourism development based on the cross-border regional identity and the natural and cultural assets of the cross-border region;
- to protect and safeguard the natural assets of the cross-border region by taking joint actions and by increasing public awareness;
- to promote good neighbourly relations across the border between local communities.

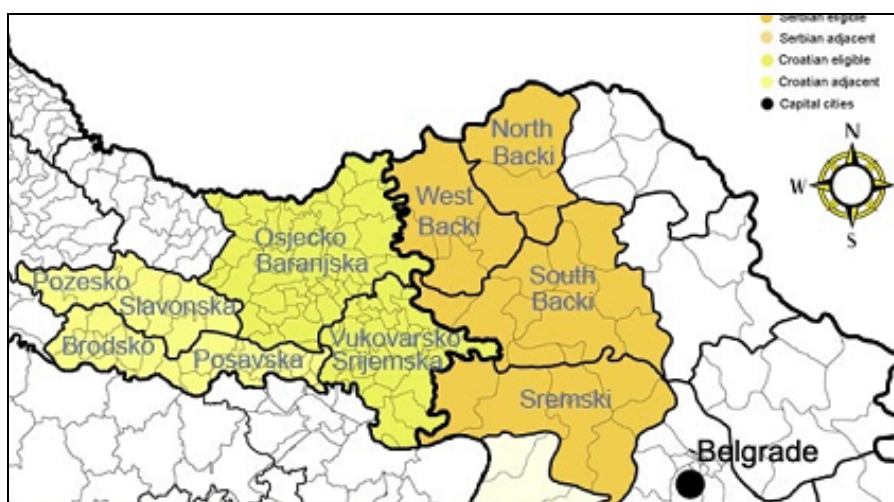
The measure within the priority (measure 1.2.) is Environmental protection, which will support awareness raising activities on environmental issues and joint actions to ensure that sites of high environmental and landscape value are managed (Fruška Gora, Danube river area, Bosut river area), so that they can sustain the pressures of tourism development without losing their value. In addition, the measure will support the development of more effective systems and approaches to emergency preparedness in relation to flood prevention and control; cross-border pollution, food safety and health issues. The measure will also support the development of joint waste management and minimisation strategies (*Figure 2*).

The role of the “People to People” measure of this priority is indisputable, as it will encourage contacts, communication and cooperation between local communities and local community organisations/agencies within the cross-border region, particularly in support, local democracy and the development of civil society.

*Romania–Serbia IPA support framework*

The first selected support scheme that is very important for the underdeveloped villages is the priority called Economic and social development, which will address issues related to connectedness, competitiveness and rural development. Its aims are support for local/regional economic and social infrastructures (regional initiatives will focus on economic/social infrastructures, including public utilities and socio/educational facilities, integrated and environmentally compatible local transport connections and inter-modal facilities), develop tourism, including the strengthening of the border region's actual identity as a tourist destination. The programme also promotes SME development, support schemes will facilitate improved marketing and business development, including in agriculture. SMEs will devise common cross-border products and services with a clear cross-border identity. In the frame of the 2<sup>nd</sup> priority (Environment and emergency prevention) the programme improves systems of cross-border environmental challenges, protection and management; implements effective strategies for waste and waste water management and effective systems and approaches to emergency preparedness. The 3<sup>rd</sup> priority will promote "people to people" exchanges like in the programme Croatia–Serbia.

Figure 2

*The programming area in Cross-Border Programme Croatia–Serbia*

Source: Instrument for Pre-Accession Assistance (IPA) Cross-Border Programme Croatia – Serbia 2007–2013.

*Hungary–Serbia IPA support framework*

This programme, whose strategic goal is the creation of a harmonic and cooperating region with a sustainable and safe environment concentrates on priorities and offers support for the eligible underdeveloped villages:

- Infrastructure and Environment, strengthening physical connections and taking common responsibility on environment;
- Economy, education and culture: stimulating a synergic economy, tourism and R&D and developing education and culture for a common mind.

It means that the main objectives for the period of 2007–2013 in this border region are the establishment of appropriate transport infrastructure for crossing the border and for reducing the isolation of border settlements, co-operation between SMEs which provides added value and enables the transfer of individual and organisational knowledge and experience which can be fruitful even if the partners are located in different countries. Joint products, learning from each other, information transfer, joint marketing etc. should be the main elements of a more cooperative economy in the symmetrical border region of Hungary and Serbia.

Tourism attractions and tourism development possibilities in border region villages, in the enhancement of the tourism attraction of the underdeveloped villages in the border regions, both internal and external factors can play a part. These potential factors can only be created by a long-term economic development.

Of the villages mentioned above, the communities of Odžaci and Bač are located in the neighbourhood of the protected border zone of the Serbian Upper Danube Area bordering Croatia, while the communes of Nova Crnja, Sečanj, Plandište and Bela Crkva are situated along the border of Serbia to Romania. Tourism can play a part in their development and improvement if the borders are made more permeable and, in addition to the possibilities offered by transit tourism, local tourism resources are appreciated too.

With regards to the external factors, the following advantages can be utilised in the tourism sector of the villages neighbour to Croatia, a country in the process of EU accession talks: the filtering down of the effects of the new tourism activities pursued in the villages of the nearby Croatian counties (Vukovarsko-Sremska županija, Osiječko-Baranjska županija), the use of the comparative advantages present in the tourism sector of the counties in the border region, and the conscious utilisation of the cross-border cooperations.

The Croatian Vukovarsko-sremska županija and the Romanian Caraş-Severin county (both being in the respective border regions) have initiated cooperation with the Voivodina government, which includes the development of the tourism sector as well.

Novi Kneževac has some chances too, although it is difficult to compete with the tourism sector of Kanjiža municipality. By the development of the tourism on the Tisa River and the expected transit tourism from Romania, the tourism sector of this village could be launched too.

### References

- Nagy I. 2007: A Vajdaság fejlettségének területi különbségei [Regional disparities in Voivodina Autonomie Province]. In: Szónokyné Ancsin, G. – Karancsi, Z. (eds.): *A határok kutatója. Tanulmányok Pál Ágnes tiszteletére*. Szeged–Szabadka, Magyarságkutató Tudományos Társaság, 2007. pp. 189–194.
- Romelić, Jovan. Plavša, Jovan 1992: *Possibility of tourism development in Vršac mountains. Collection of papers*. N. 22. Novi Sad, Institute of Geography.
- Statistical Yearbook of Serbia. Municipal Review*, 1997–2007.
- ERIC-portal of the DKMT Euroregional Information Centre (<http://www.ericinfo.eu>).
- Instrument for Pre-Accession Assistance (IPA) Cross-Border Programme Croatia – Serbia 2007–2013 May, 2007.
- Hungary–Serbia IPA Cross-border Co-operation Programme, Programming Document for the Programming Period 2007–2013.
- Romania–Serbia IPA Cross-border Co-operation Programme 2007–2013.

# **THE TERRITORY OF DOBRA SZCZECIŃSKA MUNICIPALITY AS AN EXAMPLE OF CONFLICT BETWEEN THE FUNCTIONS OF A BORDER AND SUBURBAN COMMUNE AND AN AREA OF HIGH NATURAL VALUE**

**MARCIN MAZUR**

## **Introduction**

The present paper describes the case study of a territory, over which various functions bring about spatial conflicts. The study concerns the territory of a single municipality, the smallest unit of administrative breakdown in Poland (NUTS 5), with a surface area of 110 sq. km. This unit is situated in North-Western Poland. It borders on the west with the Federal Republic of Germany (with an important border crossing of Lubieszyn-Linken), and on the east with Szczecin, the capital of the province, the functional centre of the region with some 420,000 inhabitants. The northern part of the commune is considered to be an area with above-average natural value. This area, therefore, features quite specific conditions for development, both in terms of nature and of socio-economic aspects. Although this specific location brought about economic success, as measured with a number of statistical yardsticks (*Bański, 2008*), but, at the same time, it resulted in the necessity of making difficult choices and finding uneasy compromises by the local self-governmental authorities.

Within the small territory of the commune a number of distinct spatial conflicts appeared, linked with the directions of development of the commune and the differences between the priorities of various social groups. The origins of these conflicts usually also encompass the controversy between private and public interests. The particular households, farms and businesses, conform to the microeconomic precepts, tend towards the attainment of the highest possible benefits from the location, while bearing the lowest possible costs (*de la Barra, 1989*). Public interests are realised at various levels by the governmental administration. The administrative organs, on the other hand, tend to conform to macroeconomic precepts, to maximise the welfare of the overall society on a given territory, understood in accordance with the objectives of the policy (*Johansen, 1977*).

In the situation of conflict of interests a reasonable policy of spatial planning is needed. Yet, in Poland, where spatial planning at the level of local self-government

has a short tradition, the spatial development plans are mostly too general or, as it usually happens in Western Poland, encompass only small areas, meant for concrete investment projects (*Śleszyński, 2007*).

The primary cognitive objective of the study was the identification of the factors, barriers and symptoms of development of a rural success area, which can simultaneously fulfil various functions that are mutually exclusive with respect to certain aspects. The development of such an area is, namely, perceived in quite a different manner by the local self-governmental authorities, by the persons dealing with trade, construction, inhabitants of the neighbouring town, those who moved into the area relatively recently from the town, or the native inhabitants. A significant issue is also constituted by the diagnosis of the current state, leading to the determination, which of the potential development factors and which of their directions ultimately dominated in practice and what were the causes of this. The primary applied objective, on the other hand, is to indicate the examples of the possibility of balanced development of functions, perceived as functions that might lead to spatial conflicts.

The identification of the main development problems of the commune was carried out through the field study, including the standardised expert interviews with the inhabitants of the commune, representatives of the local self-governmental bodies and selected local entrepreneurs. The conclusions were then confronted with the statistical material, provided by the Central Statistical Office (GUS) in the so-called Bank of Regional Data and with the planning documents (*Plan zagospodarowania...*, 2002; *Studium uwarunkowań...*, 2003).

### **Conditions for and development of the residential function**

Dobra Szczecińska is formally a rural commune. With 17 villages on its territory. The locality of Dobra, with the seat of the self-governmental authorities, is situated approximately 8 km from the administrative boundary of the town of Szczecin. Yet, the two biggest villages, Mierzyn (more than 4,000 inhabitants) and Bezrzecze (more than 1,500 inhabitants) are situated directly at the boundary of the town, located along the main exit roads. The study area was inhabited at the end of 2006 by more than 12,000 persons. This amounts to a population density of more than 108 persons per square km, the highest among the rural communes of the Western Pomeranian province; more than twice as high as the average for the rural municipalities in Poland, and also much higher than the value calculated for the province, including towns. The dynamics of in-migration on the territory of the commune is best illustrated by the fact that the population number increased by roughly 50% in relation to the year 2001. This dynamic population increase was mainly due to the positive net migration balance, persisting over many years. The rate of migration

balance in 2006 was at +50‰, and in the preceding years it had been only slightly lower. This resulted not only in the increase of the population, but also in the improvement of the demographic structure. Women dominate, which is not typical for rural areas and can take place only owing to the possibility of daily commuting to Szczecin and a satisfactory level of development of the service sector in the commune. The age structure is also advantageous, since there are 68.5% of persons in productive age, and only 8.1% in the post-productive age. The consequence of the advantageous age and gender structure, as well as the wealth structure is constituted by the positive balance of natural processes, amounting in the recent years to around +6.5‰ (*Bank Danych...*, 2006).

A vast majority of the new inhabitants of the study area are settlers from Szczecin. Construction activity, associated with the development of the residential function, at the expense of the agricultural function, develops most dynamically in the eastern part of the commune and along the main transit axes, that is – there, where time-wise accessibility of the town, with its specialised higher level functions, is the best. On such areas the traditional farmyard structures already occupy only a small portion of space, and housing blocks of up to three floors appeared. The inflow of non-agricultural population, originating mainly from the town, takes place first of all on the areas equipped with technical infrastructure and located along the transport routes.

The phenomenon of spontaneous urban sprawl has been known in its modern form in the world since the 19<sup>th</sup> century, and was first observed in England. This process, tolerated in the United States over decades, brought about an unprecedented spatial growth of towns. Under European conditions, though, there existed a necessity for the rapid limitation of urban sprawl, which brought about the development of a number of legal acts (*Dylewski*, 2006). The New Athens Charter, in its 2003 version, elaborated by the European Council of Town Planners, states that urban sprawl is a negative tendency, since the dispersion of urban functions leads, in particular, to longer commuting distances and times, the decrease of service quality, the deterioration of the public transport situation, the increase of road traffic and the liquidation of open spaces and farming in the vicinities of towns.

Dramatic transformations of the suburban areas, reflected, in particular, through the dynamic development of the residential function, became a typical process in Poland only during the 1990s, when free market principles started to rule the real estate market. In view of the convenient transport connections with town and, at the same time, lower prices of land, the suburban areas became very attractive for investors (*Wesołowska*, 2006). Yet, the area of the commune of Dobra Szczecińska is especially attractive in comparison with other areas situated within the suburban zone of Szczecin also because of other qualities. Intensive construction activity was possible first of all owing to the thus defined direction of development already soon after the self-governmental reform and the consistently realised projects in the

domain of development of infrastructural networks (*Studium uwarunkowań...*, 2003). Despite the dynamically growing number of new housing blocks in the recent years, the access to infrastructure remains at a very high level. Thus, 98% of inhabitants of the commune have access to a water supply system, 80% are connected to the sewage network, and 77.5% – by the gas supply network. Notwithstanding the increasing demand from the side of the new residential housing, the municipality considered is, in terms of the indicators quoted, among the best rural communes in Poland (*Bank Danych...*, 2006). The dynamic development of infrastructure was additionally facilitated by the possibility of incorporating the two biggest localities into the urban networks. It was also important that the spatial development plans of the commune were already elaborated and implemented in 1994, so that the area became more attractive for the potential investors than the competing neighbouring communes. The spatial development plans guaranteed an appropriate direction of infrastructural development for the potential investors and the desired surroundings within the zone meant for a specific kind of land use. Currently, 79 plans exist for the territory of the commune, which envisage that 80% of respective area would be meant for housing construction (*Bański*, 2008). The 2003 replacement of the spatial development plans by the decisions on construction conditions, based on the nearest neighbourhood, allowed for the preservation of spatial order by referring to the already existing structures, with simultaneous simplification of the procedures associated with obtaining a construction license. Among the factors, stimulating the particularly dynamic development of housing construction, one should also mention the 7.8 km segment of the national road stretching along the southern part of the commune and the location on the left bank of the Odra river, the same as the functional core of Szczecin. These two factors are largely decisive for the enhanced time-wise accessibility of the centre of Szczecin. In addition, there is, as well, the natural quality of the northern part of the commune and the neighbourhood of the Wkra Forest.

The appearance of the new housing estates with predominantly urban-style family housing results in the change of the rural landscape, and even in the spatial transformation of the rural settlement systems (*Górz*, 2001). Dynamic transformations lead also to changes in lifestyles and living standards, as well as demands for infrastructure and access to specialised services. A symptom of progressing urbanisation in terms of lifestyle is the fact of issuing 15 taxi licences on the territory of a rural commune. Many of the smaller children go to kindergartens in Szczecin, with which the municipal office signed appropriate contracts, guaranteeing an adequate number of places for the children from the commune.

The high share of population originating from Szczecin, causes that the municipality is very strongly functionally linked with the neighbouring city. Commuting to jobs, schools, shopping centres etc. has become commonplace. That is why, side by side with the population number, there has also been within the suburban zone a



significant increase of the road traffic, local entrepreneurship and a number of other phenomena, which are often perceived by the older inhabitants of the municipality as disadvantageous. Hence, we deal with the case of a typical, for the suburban zone, spatial conflict between the residential function and the agricultural function (*Bański, 1999*).

Within the study area this conflict concerns its southern part, which in the past featured developed private farming on relatively good soils, and where there are no constraints associated with nature protection. This part of the study area, in connection with the national road, stretching along the southern boundary of the municipality, is also characterised by the best time-wise accessibility to the centre of Szczecin and the best level of development of the infrastructural networks. In view of the important pressure from the investors and dynamically rising prices of construction plots, which may even reach the level of 150 USD per sq. m, the protection of the agricultural function on this area appears not to be rational from the economic point of view. The increase of the estate prices took place in the recent years at such a dramatic rate that many inhabitants, confronted with the changing economic situation, decided to move west, across the national border. In the context of the planned increase of the population number in the municipality until 2020 up to 50 000, Mierzyno reaching 13,000 inhabitants, Bezrzecze 12,000, Dobra 8,000 and the subsequent six localities – more than 1,000 inhabitants (*Studium uwarunkowań...*, 2003), the threat appears to be the spread of the monocultural residential function going on in a couple of localities, including the largest ones. An opportunity may only consist in the consistent support for the development of local entrepreneurship, tourism and recreation, and establishment of new jobs, especially in the service sector, which might allow to partly limit connections with the town and to implement the multi-functional development of the area. This is particularly important in the case of the study area, since it is characterised by an exceptionally advantageous endogenous and location conditions. The dynamic, uncontrolled development of the residential function, directed only by the economic principles of the free real estate market, might, however, result in the worsening of the state of natural environment, the health of the inhabitants and many other unpredictable consequences, such as, in particular, a possible future decrease of the attractiveness of this area and a drop of real estate prices. The intensive migration from the town towards the rural area, lasting for more than a decade, caused also that nowadays many of the older inhabitants of the commune to claim to be suffering from the lack of local identity and the disappearance of social ties among a large number of inhabitants of the commune. This is due to the small and still decreasing share of the native population. A role in the weak attachment to the place of residence should also be assigned to the small share of the area of agricultural land, owned by family farms, as this has been the case for many years.

The uncontrolled urban sprawl, as a new phenomenon, is positively perceived in Poland, in view of the short-term benefits, linked with the change of the function of land to the one more advantageous from the economic point of view (Maćkiewicz, 2008). Yet the lack of intervention into the estate market leads to spatial chaos, detrimental for the interests of the local community. Moreover, correcting the errors and mistakes, having taken place in the spatial development, is very costly, and the actual remedying is rarely possible in practice (Jędraszko, 2001).

### **Conditions for the development of tourism and recreation and their use**

There are three main factors, decisive for the high tourist attractiveness of the study area. The first of them is constituted by the high value of the natural environment, especially in the northern part of the municipality. The second important factor is the existence of numerous architectural monuments, which play an increasing role in attracting tourists from Germany to the commune. The last essential factor, stimulating investments into the development of tourism and recreation is the very location of the study area. Very important roles are played especially by the prominent transport connection crossing the commune, linking Szczecin with north-eastern Germany and the neighbourhood of a large town. Owing to the high intensity of the transit traffic in the area of the commune, the development of the tourist infrastructure, and, in particular, of the accommodation facilities and road infrastructure, is economically justified. The neighbourhood of Szczecin, on the other hand, gives rise to the high interest in the area of the municipality as the place of leisure and recreation of the city dwellers.

The entire study area is located in the macroregion of Szczecin Coastland. The northern part of the commune differs, though, significantly from the southern part with respect to natural conditions and features decidedly higher potential as the area of leisure and recreation. It is a part of the mesoregion of Wkra Plain (Kondracki, 2002). This area is dominated by the vast peatland depressions, used as permanent grasslands. Numerous wet and boggy fragments are left unused. The northern fringe of the municipality is covered by Wkra Forest, growing over inland dunes and peatlands, included in the Polish database of the Natura 2000 areas. The strict ornithological reserve "Świdwie" has been established there, protecting the lake that is an important bird sanctuary. The establishment of another reserve, protecting aquatic avifauna, stretching across the national border, is planned. North-eastern fragments of the study area are parts of the ecological corridor of a supra-regional character, stretching meridionally along the valley of Odra river. Of other forms of nature protection which exist in the area of the commune, there are 12

ecological land plots and three nature-and-landscape complexes, and in the north-western part of the municipality, adjacent to the national border, the establishment of an area of protected landscape is envisaged. The scarcity of fertile soils and the necessity of land improvements resulted in less developed agriculture. Owing to this, large areas of the northern part of the commune were preserved in a near-natural character. Despite the unique character of the area, no national or landscape park has been established on the territory of the municipality until now.

Taking advantage of the natural value is limited nowadays to the popular mushroom picking in the Wkra Forest, using bicycle paths and bicycle border crossing, as well as horse riding centres and sports grounds. Bicycle tourism is inscribed as the so-called trademark product of the commune, financed from the means of the European Union.

On the territory of the commune, there are 16 objects listed in the national register of protected monuments of architecture and history, and three others are also expected to also be listed. These are primarily former German buildings and the rural manor-and-park complexes. They constitute for the commune a significant potential for the development of sentimental tourism, meant for the descendants of the German population, having inhabited these territories before the World War II.

The presence of the transit route on this area, with 17,500 vehicles passing through on the average per day, now exerts the largest influence on the investments into tourist infrastructure. Owing to the specific location, two three-star hotels were established in the commune in recent years, along with numerous other hospitality and catering facilities, as well as businesses associated with servicing road traffic. Alas, these undertakings, even though attaining a relatively significant scale, feature a very narrow scope of activity, linked with their specialisation in servicing the cross-border traffic, as well as limited spatial reach. Interviews with local entrepreneurs indicated that tourism in the commune is oriented at short-time visits, based on overnight stays of persons travelling across the border and taking advantage of lower prices in Poland and catering services for foreign guests. The average occupancy of beds in the hotels situated along the national road is at 70%. The businesses with this scope of specialisation are doing well, but their activity is linked with only a small part of the territory of the municipality, and is not based on the use of its main tourist qualities. Hence, there is shortage of cheaper accommodations, further away from the main road, which could be the basis for longer-stay and weekend tourism.

Likewise, educational tourism, developing in association with the existence of the unique aquatic bird sanctuaries and archaeological sites on the territory of the commune, is of lesser significance for the economy of the commune.

Currently, the tourist qualities of the study area are not used to the degree adequate for the existing potential. The continuing lack of support for the development of tourism and recreation may in the future bring about significant trans-

formations of the present character of the landscape. The lack of compact forms of nature protection, in the form of a national or landscape park, causes that the here mentioned areas of high natural value are under threat of getting into the vicinity of large housing estates, which might make them lose their natural character. On the other hand, the monuments of architecture and history are increasingly often surrounded by new housing developments.

### **The municipality of Dobra Szczecińska as the rural area of economic success**

In terms of the level and structure of its economy, the commune of Dobra Szczecińska is among the very best ones among the rural communes in Poland. For years, the development of the local economy has been the priority for the local self-governmental authority. In order to attain this goal, the commune made use of its location qualities, first of all to attract new inhabitants. For this purpose, good conditions were established for housing construction, both in terms of development of infrastructure and of the legal prerequisites concerning construction conditions. Along with the increasing number of inhabitants, having come from the town, local entrepreneurship and demand for new services have been increasing as well.

Regretfully, the chosen direction of development of the municipality accounts to an insufficient degree for the possibilities linked with the development of tourism, potential benefits for the inhabitants of the neighbouring town, making use of the natural qualities of the municipality, or the landscape changes, which might, with time, result even in the decrease of attractiveness of the housing land.

As the structure of population changed, the economy of the commune changed entirely, as well. First of all, during the last almost twenty years, the role of agriculture significantly decreased, to the advantage of the increasing importance of services. The main reasons were the disadvantageous natural conditions, increasing land prices, motivating to changing the nature of land use, concerning medium and poor quality farming land, to construction plots, as well as the liquidation of the state farms, which owned a large share of agricultural land. Nowadays, the Agricultural Property Agency of the State Treasury still holds 36% of agricultural land. The potential development of these areas for horticultural production aiming at the neighbouring large sales market of Szczecin encounters serious problems for agro-climatic reasons. Currently, on the area considered there are only some 75 farms, of which a part only pretend to carry out farming in order to acquire area payments from the EU funds, and only a dozen or so are actually oriented at effective agricultural production. The majority of the farms in the commune should, however, be treated mainly as the investments of the inhabitants of Szczecin in land, as implied

by the fact of common giving up of filing applications for the agricultural EU payments.

The largest among the high number of the new businesses belongs to the 2<sup>nd</sup> sector of the economy. It is a production plant of the Danish corporation “Sonion”, manufacturing modern electro-acoustic assemblies for the hearing and telephone devices, receiving sets and medical equipment. This plant employs around 1,100 persons and to a large extent bases on the skilled staff, educated in Szczecin. Yet, a vast majority of the businesses are small companies, of which 78% belong to the service sector. The level of economic activity of the area is best illustrated by the fact that in the period 1997–2005 the number of businesses per 1,000 inhabitants doubled and is now at 146. This value is almost three times higher than the average for the rural areas in Poland and is even higher than the average for Polish towns (*Bank danych...*, 2006). Only 18 enterprises belong to the public sector.

The appearance of the new service outlets was induced by the advantageous population structure, demand from the side of the inhabitants, having lived before in the city, but also demand from foreign customers. Examples of services which appeared with the idea of catering to the inhabitants originating from the town and foreigners include hairdressing parlours, furniture shops, plant and flower shops, restaurants, car washes, gas stations, recreation facilities and many others.

Still, there are branches of services that have lost in significance over the last more than a decade. This applies, in particular, to the peri-boundary trade which prospered in the 1990s. Along the national road, at the distance of a couple of kilometres from the boundary, there functioned large surfaces of bazaars, whose activity was virtually uniquely oriented at customers from Germany. Yet a few years ago approximately 50% of the dozen or so thousand vehicles which pass daily over the national road, would take it in order to do shopping at the border. The market areas were owned by the commune, and the rent related to this trade constituted an important source of municipal revenue. These bazaars also provided numerous jobs to the inhabitants. In successive years prices on the two sides of the border gradually evened out, and peri-border trade was losing in significance. The situation improved significantly in the second half of 2008, owing to the fact that Poland entered the Schengen area and Polish zloty abruptly lost to Euro, but these events ought to be regarded as transitory. Currently, greater economic advantages resulting from the location close to the border are associated with the capital gained owing to the intensive trade of the 1990s and with investing it in the development of the infrastructural network development, so that in this respect, Dobra Szczecińska outranked the neighbouring, competing communes.

The economic structure of the study area differs significantly from the typical economic structure in rural areas in Poland. The characteristics of economy on the territory of the commune, outlined before, and the dynamics of changes in the recent years were decisive for classifying the commune considered as the rural eco-

nomie success area in two out of three categories. Thus, the basis for determining the local foci of success was constituted by nine diagnostic features: average dwelling area per person, share of dwellings equipped with bathroom, shares of population using water supply and sewage networks, number of shops per 1,000 inhabitants, number of libraries per 10,000 inhabitants, number of NGOs per 1,000 inhabitants, number of businesses in the private sector per 1,000 inhabitants in productive age, and own revenues of the municipal budget per inhabitant. Then, the commune studied was classified as the rural area of progression on the basis of dynamics in the period 1995–2005 of five diagnostic features: population number, surface area of dwellings, length of the water supply network, number of businesses in private sector, and own revenues of the commune. Thus, the municipality of Dobra Szczecińska featured, at the same time, a high level of economic development (*Table 1*) and high dynamics of development over the last ten years, consistently higher than the average for the country (*Bański, 2008*).

### Conclusions

The unquestionable economic success of the study area does not imply, though, the successes in all the aspects. The direction of development, chosen already in the early 1990s, based on the expansion of the functional ties with Szczecin and the improvement of the attractiveness of the commune in terms of the development of the residential function, caused numerous spatial conflicts with the development of the remaining functions, which do also encounter advantageous conditions for development within the study area. The dynamically growing population number brought about, in particular, an improvement in the demographic structure, increase of the number of businesses, increase of employment and improvement in the level of equipment with infrastructure. This, however, took place at the expense of the growing pressure on natural environment, landscape changes and the downfall of agriculture. Spatial conflict took a distinct shape first of all just along these three axes.

Until now the conflicts between the development of tourism and recreation, and development of housing construction have been effectively resolved by supporting the polarisation of development between the southern and northern parts of the municipality. These areas differ as to the attractiveness for investors, as well as in terms of nature and landscape. Yet, further dynamic growth of the population number unavoidably leads to the gradual abandonment of the recreational function, which would be highly disadvantageous for the inhabitants of the neighbouring city. On the other hand, the much more profitable tourism business, catering to the trans-border traffic, makes use of entirely different location qualities, and is concentrated in the area, featuring high pressure from housing development.

**Table 1**  
**Selected statistical data concerning the economic develop-  
ment of the commune of Dobra Szczecińska against the back-  
ground of Poland**

The reactivation of agricultural activity, even in the form of commercial farming, aiming at supplying the neighbouring city, is now apparently impossible in view of the high land prices, meant for housing construction. The infrastructure and the buildings of the former state farms have been largely turned to use by now for non-agricultural purposes. An additional reason for abandoning the agricultural function is the fact that the areas featuring the best natural conditions for the development of agriculture coincide largely with the areas where the pressure from the residential function is the highest.

Potential, associated with the natural qualities and monuments of architecture is nowadays evaluated solely from the economic viewpoint, which is the primary cause of the lack of equilibrium between the development of tourism and recreation and the development of housing function. An essential barrier to the development of recreation on the basis of functional links with Szczecin is also constituted by the lack of coordination in the spatial planning within the suburban zones of large cities in Poland.

### References

- Bański, J. 1999: Obszary problemowe w rolnictwie Polski [Problem areas in Polish agriculture; in Polish]. *Prace Geograficzne*. 172. Wrocław, IGIPZ PAN.
- Bański, J. 2008: Wiejskie obszary sukcesu gospodarczego [Rural areas of economic success; in Polish] *Rural Studies*. 14. Warszawa, IGIPZ PAN-PTG.
- De la Barra, T. 1989: *Integrated land use and transport modelling: decision chains and hierarchies*. New York, Cambridge University Press.
- Dylewski, R. 2006: Problemy rozprzestrzeniania się miast w świetle doświadczeń krajów Unii Europejskiej i Stanów Zjednoczonych [Problems of urban sprawl in the light of experience of the countries of European Union and the United States; in Polish]. In: Kozłowski, S. (ed.): *Żywiłowe rozprzestrzenianie się miast*. Warszawa-Lublin, Wyd. Ekonomia i Środowisko.
- Górz, B. 2001: Budownictwo mieszkaniowe na obszarach wiejskich południowej Polski po roku 1988 [Housing construction on the rural areas of southern Poland after 1988; in Polish]. In: Rajman, J. (ed.): *Polska-Europa. Gospodarka, przemysł*. Kraków, Wyd. Nauk. Akademii Pedagogicznej. pp. 261–279.
- Jedraszko, A. 2001: *Odpowiedzialność władz publicznych za ład przestrzenny* [Responsibility of the public authorities for spatial order; in Polish]. Mimeo. Stuttgart.
- Johansen, L. 1977: *Lectures on macroeconomic planning*. North-Holland, Amsterdam.
- Kondracki, J. 2002: *Geografia regionalna Polski* [Regional Geography of Poland; in Polish]. Warszawa, Wyd. Nauk. PWN.
- Plan zagospodarowania przestrzennego województwa zachodniopomorskiego*, 2002 [Spatial development plan for the Western Pomeranian province, in Polish]. Regionalne Biuro Gospodarki Przestrzennej Województwa Zachodniopomorskiego, Szczecin.
- Maćkiewicz, B. 2008: Ceny nieruchomości niezabudowanych jako kryterium zmian funkcjonalno-przestrzennych w aglomeracjach miejskich [Prices of land as a criterion of functional-spatial changes in urban agglomerations; in Polish]. In: Gierańczyk, W. – Kluba, M. (eds.): *Problemy i metody oceny kontinuum miejsko-wiejskiego w Polsce*, *Rural Studies*. 13. Warszawa, IGIPZ PAN-PTG.



- Studium uwarunkowań i kierunków zagospodarowania przestrzennego Gminy Dobra*, 2003 [Study of conditions and directions of spatial development of the Commune of Dobra; in Polish]. Regionalne Biuro Gospodarki Przestrzennej Województwa Zachodniopomorskiego, Szczecin.
- Śleszyński, P. et al. 2007: *Raport o stanie i uwarunkowaniach prac planistycznych w gminach na koniec 2006 roku* [Report on the state and conditioning of the spatial planning work in the communes as of the end of 2006; in Polish]. Warszawa, IGIPZ PAN.
- Wesołowska, M. 2006: *Rozwój budownictwa mieszkaniowego a przemiany przestrzenne wsi województwa lubelskiego* [Development of housing construction and spatial transformations of countryside in Lublin voivodship; in Polish]. *Rural Studies*. 10. IGIPZ PAN-PTG. Warszawa.
- [http://www.stat.gov.pl/bdr\\_n/app/strona.indeks](http://www.stat.gov.pl/bdr_n/app/strona.indeks) [recently accessed on 13.02.2009].