

Geographic Views on Regional Planning and Development of Bosnia and Herzegovina

Rahman Nurkovic

(Rahman Nurkovic, Associate Professor, University of Sarajevo, Faculty of Natural Sciences, Department of Geography, Zmaja od Bosne 33, 71 000 Sarajevo, Bosnia and Herzegovina, rahmannurkovic@hotmail.com)

1 ABSTRACT

Geographic views on regional planning as an indicator of differences in regional development of Bosnia and Herzegovina are studied in the paper. In this regard, economic development, socio-economic transformation and regional development in Bosnia and Herzegovina have been considered. With evaluation of relevant parameters, ranking of developmental centres according to order of development has been performed, and typology of regional development of macroregions was built. The expressed differences in development were completed by corresponding structural characteristics of the observed spatial units.

2 INTRODUCTION

Over the past few decades in the world, problems of regional planning and development became evident. They are discussed at national, continental and world level. Regional developmental problems particularly gained in importance in Europe as a consequence of integration processes within the European Union. General socio-economic development of Bosnia and Herzegovina as a factor of regional development at the beginning of 1990s has been marked by several important events, which reflected intensely on its regional development.

Regional planning has geographic, temporal, functional and institutional outspread. Temporal outspread originates from orientation of planning to the future. From the past it takes the elements and factors that are of fundamental importance for analysing the existing conditions of the future development, respectively for determining the potential and desired changes, and the ways to them (Friedman, 1987).

Spatial planning deals with the issues of spatial setting the development based on a significant cognition that the space has limited abilities for development and growth setting, not on its general hinderances. It would be very uncertain if spatial planning separated, respectively, moved from developmental interests. In contemporary regional economic development of Bosnia and Herzegovina the greatest disputes are related to natural and social factors of spatial planning and regional development. Regardless these differences, it is quite certain that natural components of the space largely define the economic system of many contemporary societies and economic spaces, accordingly the regional development of Bosnia and Herzegovina as well.

Connection between space and regional development should be observed in the dialectical unity. There is no influence of space on development without its retroactivity on the space itself. Thus, space appears at the same time as factor, but also as the object of development. Namely, it is known that development affects essentially the condition and quality of natural space components. That influence reflects in the level of economic development of single activities in Bosnia and Herzegovina. .

3 REGIONAL DEVELOPMENTAL DIFFERENCES

Regionally, developmental differences are the problem of the whole world (Lorber 2003). Despite the efforts toward more balanced regional development, differences are increasing to a certain extent in more developed countries as well, and exertion gets one of the major issues of today's world. The European countries are also differently developed, and developmental differences between different regions are even more expressed.

Although regional developmental differences are dependant on a series of factors, natural condition, geographic position, political causes and inherited economic conditions are regarded as major ones. The mentioned factors are the determining factors in economic and regional development of Bosnia and Herzegovina in the regional aspect. As a rule, regional development is a product of the number of factors. In Bosnia and Herzegovina, in cities, suburbanized areas, and other suburban settlements and industrial settlements, even 95% of all jobs are present. On the other hand, less developed areas cannot follow such development and lag behind.

The European Commission presented its vision of regional development through spatial plans in Bosnia and Herzegovina, on the basis of five regions, as follows: Sarajevo economic region (about thirty municipalities),

Northeast Bosnia (about forty municipalities), Northwest Bosnia (about thirty municipalities), Central Bosnia (about twenty municipalities) and Southeast Bosnia (about thirty municipalities). Sarajevo city is a regional and economic centre of the economic region of Sarajevo, a centre of Northeast Bosnia is in Tuzla, of Central Bosnia in Zenica, of Southeast Bosnia in Mostar and of Northwest Bosnia in Banja Luka.

With regard to size of territory of Bosnia and Herzegovina, population density, communicativeness of space, level of economic development and distribution of larger urban centres, it has been estimated that optimum spatial size of one macroregion ranges between 10 to 15 thousand km². With such size of one macroregion the average maximum distance of marginal parts of one macroregion from its centre would range between 56 to 69 km. It is being aimed therewith that the maximum distance of marginal areas from the basic centre be up to 100 km and only in situations when alternative divisions are not possible, that distance would be somewhat more than 100 km (Nurković 2005).

The objective of the European Union regional policy tends to a decrease in regional developmental differences. This includes a provision of financial resources for development of the less developed countries and the border areas within the programme „INTERREG“, which is intended for support of economic participation among the regions.

Such allocated financial aid would contribute structurally to weak border areas, improving living conditions in a province, assisting in putting an end to problems during integration of the countries into EU, and contribute economically to other participations and connecting with both sides.

With spreading the economic participation and assistance in the border areas, strong globalization influences are always in the first plan, which primarily use cheap raw materials, market, undamaged natural environment, available space, localities for recreation, cheap labour force in industrial facilities and in cross-border employment etc (Christensen 1985).

There is much of such cross-border participation in different forms on the border between Bosnia and Herzegovina and Croatia: in 2001, about 14.000 inhabitants of Bosnia and Herzegovina travelled for work to Croatia, Serbia and Montenegro on daily basis, thereof about 8.000 to Croatia and about 6.000 to Serbia and Montenegro. Such participation and connecting means a determining overall expansion, not only economic expansion of the centres of power to the border and other regions and their influence on economic and regional development. This is particularly important for tourism, which is the most dominant in border regions (Pak 2003).

With regard to natural, social and economic factors, differently developed border regions of Bosnia and Herzegovina are classified into three groups:

- Border areas with a high level of urbanisation and a cross-border connection of the population and economy, eg. between Brčko and Gunja;
- The second group is represented by the border areas between Serbia and Montenegro, which are very far from larger developmental centres or, simply said, those areas that border with the less developed border areas in both neighboring countries;
- The third group comprises the border areas on Croatian-Hungarian border, which include, to a larger extent, traditionally less developed areas. (Osmanković, 2001).

Bosnia and Herzegovina belongs to mountainous European countries. In particular, its border areas are dominantly hilly. Since the relief definitely affects the population, traffic passability and a series of other developmental elements, it affects for the most part the development of border areas. So, dominantly mountainous border area at the farthest border of Bosnia and Herzegovina and Croatia is divided on several different parts with the broad valleys in Bosanska krajina, wide open against the closer million agglomerations of Zagreb and Belgrade. In every place the border areas on Bosnia and Herzegovina-Croatia border are mixed. c

Problems with which the planners from Bosnia and Herzegovina encountered seem to be similar to those in other countries. Most of the problems have been solved in a similar manner as in other countries, but the errors in planning and implementation of the plans were not avoided as it has been expected. The urbanised population in the whole period has had rather high growth rates. The achieved level of urbanisation in 2011 (according to criterion by which inhabitants of settlements bigger than 2.000 inhabitants are regarded as

urbanised) of 49,5% indicates that Bosnia and Herzegovina lined up to the countries having medium urbanisation level.

The highest growth of the number of settlements was achieved in a group of the settlements with 2.000-10.000 inhabitants, and the highest demographic growth had the settlements in group of 50.000 -100.000 inhabitants. Spatial arrangement of the settlements with more than 2.000 inhabitants, respectively 10.000 inhabitants, with basic road infrastructure and directions of concentration of population and activities is seen on Map 1. Some sociologic researches indicate that in such rapid quantitative changes of the size of cities one should seek also a significant incapability of adjusting the settled population to urban conditions, intolerance, aggressiveness and alike. Many people see it as the urban-rural conflict.

In expert works of Vresk, Nurković and Rebernik, urban geographers and planners, the German geographer Auerbach, who indicated to certain dependence between the size and number of the cities in the region even at the beginning of the 20th century, is often applied for analysis of hierarchic dimension of the urban systems. In the simplest form of the rank-size rule it is expected to have a city in series of cities in the country or the region, which are distributed by size, respectively the number of inhabitants of the largest city

is divided by ordinal numeral of that city. It can be demonstrated by the formula: $P_k = \frac{P_1}{k}$ with P_1 the largest city and P_k a city with ordinal numeral k .

Table 1, of 15 selected cities in Bosnia and Herzegovina, based on application of the rank-size rule, indicates that Sarajevo is the largest city, and the next group of cities is a group of approximately equal cities (Fig.1). Frequency distributions of cities according to the rank-size rule have shown that the population of Bosnia and Herzegovina prefers living in larger cities. From the aspect of industrialisation and urbanisation, it is a consequence of deagrarianisation and demand for jobs in secondary, tertiary and quaternary activities in the city.

City	Population		Position		Real order	Population
	1981	1991	1981	1991		
Sarajevo	448.519	527.049	1	1	1	750.000
Banja Luka	183.618	195.692	2	2	2,7	225.000
Tuzla	121.717	131.618	3	3	4,0	174.000
Mostar	110.377	126.628	4	4	4,2	112.000
Bihać	65.544	70.732	10	11	7,5	63.000
Doboj	99.548	102.549	6	6	5,1	80.000
Prijedor	108.868	112.543	5	5	4,7	95.000
Goražde	36.924	37.573	15	15	14,0	17.000
Bijeljina	92.808	96.988	7	7	5,4	100.000
Brčko	82.768	87.627	8	8	6,0	100.000
Zenica	132.733	145.517	3	3	4,1	127.105

Table 1: Cities of Bosnia and Herzegovina according to the rank-size rule, 1981-2010. Source: Statistical Office of Bosnia and Herzegovina, 1981-2010.

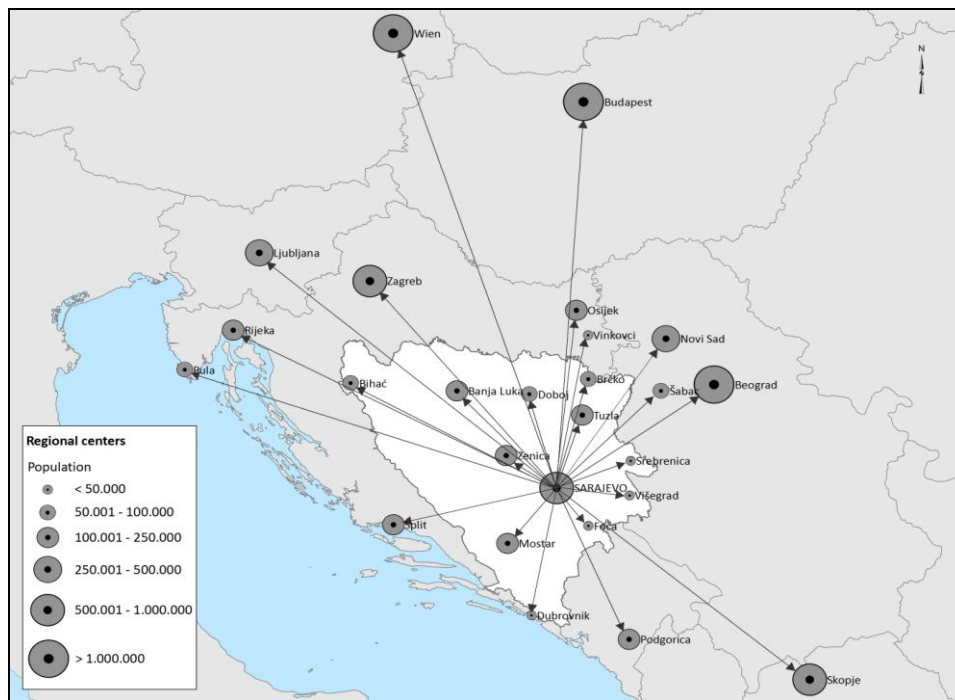


Fig. 1: Network of developmental centres in Bosnia and Herzegovina, in 2010 Author: Nurkovic, 2011

4 BASIC DIRECTIONS OF DEVELOPMENT OF SPATIAL PLANNING IN BOSNIA AND HERZGOVINA

Upon creating the Spatial Plan of Bosnia and Herzegovina a very broad process of preparation of spatial plans of municipalities has been open, and a certain number of spatial plans of special areas were performed. Preparation of spatial plans of municipalities was based mainly on methodology and experiences gained on the preparation of the spatial plan of Bosnia and Herzegovina. For these needs no particular researches were done. The basic approach at the preparation of municipal plans was based on polycentric development, respectively on development of secondary municipal centres and centres of community of villages, as well as on decrease of the present process of population concentration in the municipal centres.

Orientation was also on the protection of agricultural and forest soil, sources of drinking water and valuable natural and historical areas. Spatial plans of the municipalities became a very significant instrument of protection and arrangement of space, although they had some deficiencies such as imprecise data bases, insufficient knowledge of local circumstances by planners, insufficient inclusion of local communities in plan preparation and alike (Nurković 2003).

Demands for integration with EU emphasize the problems of preservation and further development of national identity, as well as the requirements that are in sense of competitiveness placed by urban system of Europe (Černe 2005). Urban areas of Bosnia and Herzegovina will integrate into the urban network of Europe (Euro-regions) through regional cooperation, by forming the network of urban centres and by development of multimodal transport corridors.

It is estimated that this concept corresponds to a new urbanisation process, which is characteristic of polycentric urbanised regional space, strong communication corridors, regional division of work, as well as various privileges related to living environment. Ideas of understanding the new conurbations as competitive parts of the European urban system may be applied on already formed agglomerations of Bihac, Banja Luka, Tuzla, Zenica, Sarajevo and Mostar. The area of Sarajevo should be treated as a metropolitan region, which will be formed as one of significant urban centres of southeast Europe.

For urban continuity and cultural identity of Bosnia and Herzegovina historical inheritance has a particular importance, so it is indispensable to provide its renewal and inclusion into the development, as part of the European cultural inheritance. With spatial plan of Bosnia and Herzegovina the planned area of natural values (about 16% of area of Bosnia and Herzegovina) should be protected by special plans (spatial plans of special areas) and included into natural inheritance of Europe and the world (UNESCO). Cities of Bosnia and Herzegovina have great importance as developmental centres and generators of development, which

makes them nodal points in area planning, and regional development and regional development on the whole.

It is necessary to organize institutions for spatial planning and regional development on regional level (Klemenčič 2005). At the state level it is obvious that a research also needs to be organised through an adequate institute for spatial planning. Economic and interdisciplinary researches of regional inequalities have shown that they are mostly a result of economic reasons (general economic policy, employment and pricing policy, balance of payments etc.), and other factors such as natural-geographic conditions, historical inheritance, traffic-geographic possibilities etc.

It is important to say that an explanation for the mentioned regional inequalities in Bosnia and Herzegovina is found mainly in traffic-geographic separation of some areas in relation to national or broader regional centre. That problem of separation, in essence, is reduced to a question of traffic accessibility. It can be said that, unlike more accessible regions of Bosnia and Herzegovina, regarding a kind and number of traffic connections, time of travelling and travel expenses, less accessible regions separated, burdened with serious developmental difficulties.

In the mentioned research of regional development and regional inequalities application of model centre-periphery represents a significant methodologic innovation. Bosnia and Herzegovina is faced with a problem of regional inequalities. They were particularly expressed in the past twenty years, which caused implementation of adequate policy of regional development. These inequalities were intensified due to war circumstances after 1990 and need to be considered in the future as well. However, within its territory Bosnia and Herzegovina has a core region and peripheral and undeveloped regions as well. Therefore, certain considerations of relation centre –periphery, on the basis of traffic role, respectively traffic accessibility, may serve as a foundation for realising the issues of regional development of Bosnia and Herzegovina.

5 CONCLUSION

In contemporary regional economic development of Bosnia and Herzegovina the biggest disputes are related to natural and social factors of spatial planning and regional development. Regardless these differences, it is quite certain that natural components of space largely determine the economic system of many contemporary societies and economic spaces, and accordingly the regional development of Bosnia and Herzegovina as well. Connection between space and regional development should be observed in the dialectical unity. This is also proved by experience of Bosnia and Herzegovina and involvement of the international community in the regional development and forming the regions in Bosnia and Herzegovina.

Recommendations for Bosnia and Herzegovina from the European Union, on the basis of knowledge of quality spatial plans and national characteristics, and additionally by realising different successful examples, would be oriented toward the regional development. It seems that all potentials of adequate regionalisations and regional development have not been fully recognized yet. The authors from Bosnia and Herzegovina have recognized four, respectively five basic macroregions in the area of Bosnia and Herzegovina with centres in Sarajevo, Mostar, Zenica, Tuzla and Banjaluka. These regions have scientific, expert, empirical, historical and every other foundation.

6 REFERENCES

- Christensen, K. S.: Coping with Uncertainty in Planning. In: *Journal of the American Planning Association*, Vol. 51, No. 1, pp. 63-73. 1985.
- Lorber, Lučka : The Significance of Cross-Border Traffic Development on Slovene-Croatian Border Area Development. In: *Obmenja območja*, Maribor, pp.84-92. Maribor, 2001.
- Andrej, Černe: Professional analysis in spatial planning, In: *Dela* 23, pp. 115-166. Ljubljana, 2005.
- Klemenčič, Matjaž: Region and regional structure of Slovenia, In: *Dela* 23, pp. 5-49. Ljubljana, 2005.
- Pak, Mirko: Geografski elementi regionalnog razvoja Spodnjega Podravlja s Prlekijo. In: *Geografski vestnik* 68, pp.161-174. Ljubljana, 2003.
- Nurković, Rahman: Influence of industry on urbanistic development and infrastructure of central settlements of the Tuzla valley, In: *Institute of area planning, Almanac*, pp. 355-364. Belgrade, 2003.
- Nurković, Rahman: Industry as factor of regional development of Bosnia and Herzegovina (shown through the region of Tuzla). In: *Regional development problems in Croatia and neighboring countries Proceedings*, pp.173-183. Zagreb, 2005.
- De Blij H. J., Muller O. P. : *Geography - Realms, Regions and Concepts*. John Wiley & Sons, Inc. New York, 1997.
- Osmanković, Jasmina: *Regionalizacija - teorija i praksa*. Ed. BETA, pp. 135-136. Sarajevo, 2001.
- Regional Policy and Cohesion, Sustainable urban development in the EU: a framework for action*. Ed. European Commission, Brisel, 1998.