

## GEOGRAPHICAL UNDERSTANDING OF SPATIAL PLANNING

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*Modern trends of spatial planning are based on a multidisciplinary approach which includes scientific area of geography. In the researchs for the development of spatial plans teams of different experts from several scientific fields participate (geographers, architects, economists, lawyers, etc.). The role of geographers in the understanding of space and the development of spatial plans is significant; from placing objects, aims and methods of research, preparation of cartographic base, then managing production, and finally the implementation of regional plans. In the scientific literature, theoretical discussions and articles on geography in the field of spatial planning are scarce, although geography and spatial planning are scientific disciplines with much in common. The aim of this paper is to examine the relationships between geography, primarily because of the space as its study object, and spatial planning, as a complex scientific and research discipline. Geographical spatial analysis and the development of spatial planning is necessary to Bosnia and Herzegovina on its European path, because planned activities based on geographical analysis are an important segment of the national spatial strategy of the European Union member states.*

**Keywords:** *geography, spatial planning, spatial analysis, spatial plans.*

## INTRODUCTION

Spatial planning involves the system of measures and activities aimed at multidisciplinary research of natural and man-made resources in a particular territory; evaluation of their utilization; identification of incentives and limiting internal and external development opportunities and priorities in the development and providing of planning solutions and measures in order of and sustainable and rational spatial use.

Spatial planning is particularly important for geography as a science which deals with the study of space and its components. The development of modern geography of the middle of the last century was based on the functional organization of space, the current process, the rational use of natural resources and protection of the geographical environment (Spahić, 2005). Regional and spatial planning requires a detailed analysis of space, which implies an exhaustive knowledge of all natural geographical and socio-geographical determinants of the same, which already affected or may affect the development of the environment in the future. To date, a large number of regional plans of general and special purpose is made in Bosnia and Herzegovina. These plans include the territorial units of different sizes of the

Federation of Bosnia and Herzegovina, the Republic of Srpska, cantons, municipalities, protected areas and so on.

The fact is that the study of space, so far the content of scientific and study work of geographers and the narrow scope of some other sciences, becomes a material basis of one practical activity, and thus gets a certain scientific role and meaning. There is a considerable experience in this field on the territory of the European Union, given the fact that geography has an active and a very important role in regional planning in all countries of the Union. The purpose of this study was to examine mutual connections and relations of geography and regional and spatial planning.

## CONTENT OF SPATIAL PLANNING

The subject of a spatial research is not only the space with all the elements of natural-geographical and socio-geographical environment, but also the overall development, which has a spatial and temporal dimension. The objectives of regional and spatial planning vary from country to country, but a common component is their tendency towards a rational usage of space and establishment of a harmonious, functional, cost-effective, human and aesthetic environment. Regional or generally spatial planning is an instrument for guiding society towards the realization of its long-term goals. The main task of spatial planning is setting and elaborating the program of spatial planning development, based on the natural-geographical and socio-geographical factors and resources in a particular area. An implementation of this program aims to preserve the interests of the whole as opposed to various individual and local tendencies.

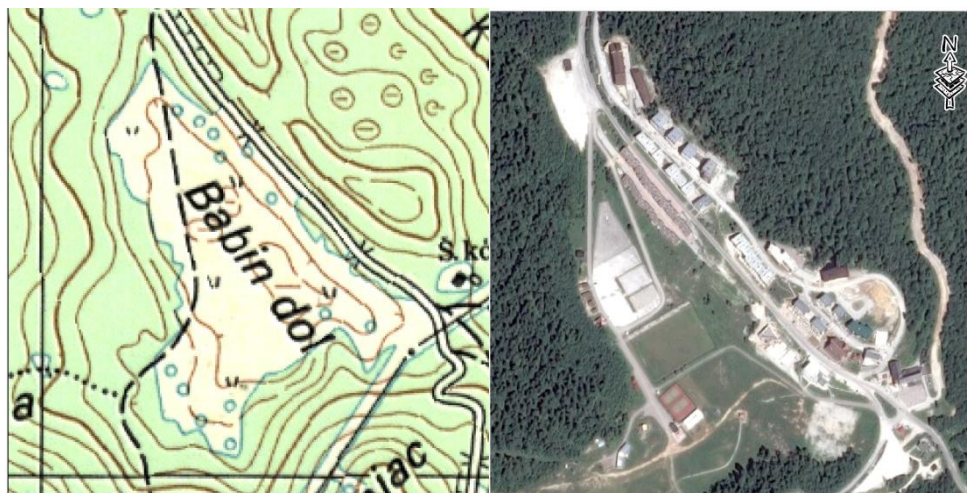
A perspective program shall be drawn up and developed after an extensive terrain observations and analysis of the current situation and conditions, in close coordination with stakeholders and within the foreseeable development opportunities. The conclusions drawn from the perspective of the program are displayed in a graphical perspective spatial plans. Topographic maps that are used in the spatial planning process of Bosnia and Herzegovina are published by the Military Geographical Institute in Belgrade and they date back to the 70s of the last century. Many of the changes that have occurred in the meantime are not visible in these topographical maps. These changes are caused by different processes and phenomena, and are manifested in updates in infrastructure and buildings and the changes of the natural environment. Therefore, in order to ensure an adequate implementation of the spatial plans and in order to harmonize the actual situation with the state on the map, it is necessary to make the reambulation of geographic contents on existing topographical base, which also implies restoring deleted, once applicable toponyms.

An example of a mismatch of topographic map and the current spatial state can be clearly seen on the valley Babin do on Bjelašnica mountain, where some significant anthropogenic interventions were performed in recent decades (Map 1).

By comparing the situation on the segment of topographic map Bjelašnica - Istok 1:25000 for Babin do and the cosmic snapshot of the current situation in the same area, a significant discrepancy can be noticed. Namely, map dates back to 1974, after which the area of Babin Do envisaged for the construction of ski runs and associated infrastructure facilities, for the purpose of the organization of the XIV Winter Olympic Games held in 1984 in Sarajevo. Skiing paths and the hotel "Maršal" were built just before the XIV Winter Olympics, and an apartment complex was built in the last decade, along with a larger

number of tourist capacities. All the significant changes in the area are entered in a digital form on Map 2, which shows to what extent was the mentioned area anthropogenized, indicating a need for the necessary reambulation of outdated topographic maps.

In its analytical part, spatial planning has the task to comprehensively and critically consider the deployment of all the features in a certain area, to set a specific conclusion, to establish the extent to which the state of area changed and to predict the possible consequences of these changes. This implies the population distribution, infrastructure, social facilities and economy, all in accordance with the natural geographic elements and capabilities. Geographical spatial planning therefore implies an adequate deployment of all the activities in the area. Further development of the same is treated with the obligatory respect for relations between natural elements and intentions of social development.



**Map 1:** Comparison of the topographic map 1: 25000 and the current state of Babin do (segment of topographic map of Bjelašnica – Istok 1: 25000 and a cosmic snapshot of Google Earth for the same area

Spatial planning also represents a certain form of control of economic planning, which does not consider the functional relations in space. In fact, economic, mainly numerical planning, is not able to consider the complex relationship of the current and future state of the environment, and sometimes, absolutely unnecessary, because of lack of understanding of the essence of space, economic planning opposes physical. Each planning perspective which tends to review only economic and social future, should be followed by spatial planning. This is because geographical spatial planning, as it was mentioned before, includes an arrangement of functional elements and the adjustment of new social content and activities into the environment.



Map 2: Reambulation segment of topographic map Bjelašnica - Istok 1:25 000 in accordance to the cosmic snapshot

## European context of spatial planning

Due to the necessity of harmonizing the various national spatial development visions, different documents are adopted at the European level - such as guidelines, declarations or conventions, all of which are principally determined by the joint orientation in the spatial planning process. European Union member states bear a great responsibility for the spatial planning process, because they are binding on all those different documents in their national sectoral policies, strategies and plans.

The Council of Europe brought together ministers responsible for regional and spatial planning for the first time in 1970. Among the many documents adopted at the ministerial conferences of the Council of Europe, the most important are the European Regional / Spatial Planning Charter, known as Torremolinos (CEMAT, 1983), the European Strategy for Regional / Spatial Planning (CEMAT, 1988), the European Spatial Development Perspective (ESDP, 1999), Guiding principles for sustainable development of the European continent (CEMAT, 2000) etc. By adopting the ESDP, the European Union member states and members of the European Commission responsible for regional policy agreed on common objectives and concepts for future development of the European Union territory. The primary objectives of this strategic document are reflected in defining:

- Economic and social cohesion;
- Preservation and management of natural resources and cultural heritage;
- More balanced competitiveness of the European territory.

By defining the space as the most important resource with distinguished social, geo-ecological and economic value, as is already been done by the aforementioned strategic documents of the European Union, spatial planning is a way of management, which is aimed at the sustainability, in addition to creating the new value. Previous studies warn of a bad set of the legislative framework in the development of spatial planning documentation, which negatively affects the spatial development, with a disregard for the basic planning criteria.

Given that not all of the European regions are starting from the same point, which makes it difficult to strengthen economic and social cohesion of the EU, it is important to gradually contribute to spatial balance that should provide more equal geographical distribution of development throughout the territory of the EU (in order to achieve cohesion). The policy options differ in terms of geographical area to which they relate. The ESDP recommends three levels of spatial cooperation:

- The Community level,
- The transnational / national level,
- The regional / local level.

The main focus of the application of the ESDP as a European document is at the community and transnational level, with priority issues of cooperation at local and regional levels. This document proposes that the European institutions, together with the national authorities of the Member States responsible for spatial development, should implement appropriate measures for cooperation with international organizations and institutions, in order to promote the consistent application of the ESDP in practice at the international level.

However, in the preparation of ESDP, in the process of comparison of spatial data, major deficiencies and heterogeneity in the methodology of collecting the same was discovered. Therefore, the basis for future planning activities has been defined, based on the geographical research of the spatial basis, and it implies a detailed analysis of the following elements:

- Geographical position,
- Natural Resources,
- Cultural Resources,
- Economics strength,
- Land use,
- Social integration,
- Spatial integration.

Pursuant to the foregoing, it is necessary to conduct long-term research on spatial issues in the EU, as a part of the ongoing process of amending the ESDP. Appropriate activities include studies and projects aiming to identify and analyze problems and solutions of spatial and regional development, testing new forms of cooperation related to the ESDP and the exchange of innovative experiences in order to promote the use and transfer of knowledge in the area of spatial and economic development.

Geographical analysis of the this space and its natural geographical and socio-geographical components is equally necessary for both short-term and long-term scenarios for the prediction of spatial development. The current content of the ESDP is based on certain assumptions which are valid in the medium-term scenarios. However, although cooperation in the field of spatial planning can proceed in the short and medium term, it is important to bear in mind the long-term issues and prospects spatial development.

## DEVELOPMENT OF RELATIONS BETWEEN SPATIAL PLANNING AND GEOGRAPHY

Spatial planning confronts unambiguous, homogeneous regions to functional regions. Namely, in the process of regional and spatial planning, space is an area of unique geographical characteristics consisting of natural micro-regions, which together, given the social role, complementary and together form an economic unit, which usually confirms the gravitational movement of the population. Region in spatial planning is a unit whose social connections, which ultimately result from natural conditions, is a social entity, whose functioning should be analyzed and directed in accordance with the objectives of the future development. Differences between the development levels of theoretical and methodological basis of geographic and spatial planning research several decades ago and today are very large. In the development of geography, great attention is paid to the development of applied geography that is, in some geographical circles, seen as normative, engaged, constructive and practical geography. (Spahic, 2011) Thus, relations between the two disciplines today is significantly different from the roles and relations that geographical approach had in the development of spatial plans in the first decades of this scientific discipline development.

Relations between these two scientific disciplines long have been based on the characteristics and the level of development of geographical sciences and spatial planning, with a lot of impurities in the methodology and the under-developed teaching methods for achieving the synthesis of the results obtained from other disciplines and for the design of future development. Role of geographic research is usually at this stage reduced to the study of the past development and characteristics of the existing complex structure of a specific territory. Results of geographical study represented one of the bases in the development of spatial plans. Links between geography and regional planning at the time with this approach were very important, but differences between the two disciplines were very large.

These two disciplines had complex approach towards the space and dealt with the same basic categories: population, natural geocomplexes and those created by man. However, differences regarding the concept of geographical space content or function of its elements, and therefore between research subjects of these two disciplines were very large. In the study of complex natural environment in the preparation of the spatial plan, emphasis is placed on those elements, which have or may have the role of natural resources or resources to build settlements, factors distribution of economic and non-economic activities or to them as areas of special features that should be preserved from a disorganized and irrational use.

In geographical studies all those elements of basic categories, which would enable to study the development factors of the territory's spatial organization are comprehended. Set of the studied elements of spatial planning research included only those elements of geographical space, which were in the function of the basic objective of the research. Spatial planning dealt with those elements of the spatial reality that have or may have a direct or indirect role in setting development goals and deployment planning categories, and contribute to creating solutions for spatial structures. Differences between geographical and spatial planning studies have been considered through time period. Geographical research in this approach was limited to the current situation and the previous period, which was important for the creation of such spatial structure. In the planned research focus was on the current situation and the future spatial model of the territory. Thanks to the great progress of geography as well as fundamental and applied science on the one hand and the role, and concept of spatial planning has created a new, modern relationships and connections between geography and spatial planning. (Perisic, 1985)

Naime, u ovom novijem periodu je postavljeno, prošireno i prilično je zaokruženo polje predmeta i metoda primijenjenih geografskih istraživanja u sklopu izrade prostornih planova na svim nivoima. Povećan je značaj primijenjenih geografskih istraživanja, kako u početnim kompleksnim i u specijalističkim proučavanjima geoprostora, tako i u fazi ocjene, sinteze i kreiranja prostorno planskih rješenja i u vrednovanju stepena njihove povoljnosti.

In fact, in recent years this has raised, extended and quite rounded box objects and methods applied geographical research as part of the development of spatial plans at all levels. Increased importance of applied geographical research, both in the initial complex and specialized studies in geographic space, and at the stage of evaluation, synthesis and creation of spatial planning solutions and in evaluating their level of benefits.

Within the framework of spatial planning is necessary to pay attention to the basic elements of economic activity: agriculture, industry and all its branches, transport, trade etc. The study of diversity and interaction of aforementioned activities, in geography beside demogeography have developed specific scientific disciplines and branches urban and rural, and economic geography, whose influence on the spatial planning process was earlier explained. Urban and rural geography among others studies the distribution of human settlements, their regional and local position, origin and development, morphological characteristics, system of settlements and their eventual illegal construction, while the economic geography studies the socio-economic system, regularity of development, spatial distribution and organization of primary, secondary, tertiary activities on whose development opportunities positively and negatively affect natural geographical factors.

Spatial plans should ensure the optimum positioning of people and goods. The analytical part of the spatial plan includes a detailed analysis of the spatial base, which involves the integration of all the elements and components of the natural geographical and

socio-geographical environment. Natural geographical elements affect the physical appearance of the settlement and the space. Their influence can with spatial planning to some extent change and adapt to the needs, but can never be ignored and eliminated. In spatial and regional plans, it is necessary to analyze and study the most important geographical features: relief, climate, water, land and wildlife. Research of natural geographical environment is done analytically, but with synthesis is given a general assessment about resources and activities in a certain area. On the organization and regulation of a specific area the most significant effects on the environment are reflected through:

1. identification of resources and potential of that area,
2. identifying and recording natural limitations for the development of certain activities,
3. determining the environmental values of the area,
4. determining the potential opportunities for the development of the territory,
5. determination of indicative development directions based on natural geographical environment
6. planning and prioritization in development based on the natural values of the area.

Analysis of transformed natural geographical structure of space includes an overview of the current situation and perspectives of the general infrastructure (communications, waterways, energy production), land uses (agriculture soil quality), location of industrial activities (industries, type, size), etc. Analysis of the population is inevitable in the process of spatial planning. The population is changing in terms of its characteristics by regularity, characteristic for certain historical period. In spatial planning process earlier demographic development of the observed area is analyzed and given current situation as well as projections of future demographic development of the analyzed population, where, in addition to other data sources, stresses the importance of the census population. Of particular significance is the analysis of the demographic structure of the area (analysis of the total, natural and mechanical movement of the population, the study of the relationship of indigenous and immigrant populations, analysis of biological, intellectual and educational, employment structure and other structures of the population), based on which information about the general social structure of the space is obtained.

## CONCLUSION

The role of geography and its associated multiple related disciplines is significant in spatial planning. Uncontrolled development of cities, as a result of unplanned illegal construction and the absence of an adequate approach to spatial planning, often results in conflict of different uses of space, for example, residential, industrial or tourist. Given the fact that space does not end with the administrative boundaries of municipalities, cities, regions and states, more numerous are requirements for reviewing space in a broader context, from local to European, to avoid disharmonies, adverse effects, but also to preserve individual values. Solving problems in the space, as well as planning, not only applies to the planning and coordination of different land use, environmental protection, natural and cultural heritage, but largely involves other segments of geographical science. As space has become a new dimension of EU policy institutions for planning spatial development involving a large number of experts in the fields of geography, engaged in making documents which encourage the harmonization of national spatial policies, the planning of



sustainable development, preservation of diversity and cooperation the different planning levels are organized.

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