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National Report on Current Policy, Procedures, Legal Basis and Practice of Marine Spatial Planning in ***Bosnia and Herzegovina***



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1. Introduction

Planning and management of coastal areas has already become a much-affirmed scientific discipline in the world. Today, almost 60% of the world's population live in coastal areas with tendency of a steady and permanent growth.

At present, there is no marine spatial planning or Integrated Coastal Zone Management (ICZM) in Bosnia and Herzegovina. Therefore, this National Report represents only a sectional view of the current situation in the country and is the first step to introduce the ICZM in Bosnia and Herzegovina.

This report is not a strategy or a plan of what should be done in the coastal area. The main idea of the report is to objectively present planning and management situation in Bosnia and Herzegovina, to demonstrate the status and possibilities of implementation of this important scientific discipline, and to create an institutional basis to cope with future problems and challenges.

The main goal of the report is to collect all available information on planning and management, and to present the ICZM practice as the most appropriate way of solving the existing and future problems related to the protection and management of coastal areas in Bosnia and Herzegovina. Therefore, the report is the first step to introduce the ICZM in the Herzegovina-Neretva Canton. Also, the report provides a framework for the future development of the ICZM process in the Cantonal area and in Bosnia and Herzegovina.

The methodology used in the preparation of this report is based on a multidisciplinary and participatory approach, respecting the principle of subsidiarity.

Bosnia and Herzegovina is composed of two entities, namely: the Federation of Bosnia and Herzegovina, and the Republic of Srpska (RS). The basic principles of the state and legal constitution of Bosnia and Herzegovina were agreed by the General Peace Agreement for Bosnia and Herzegovina, signed in Dayton, on 21st November 1995, and in Paris, on 14th December 1995. When the General Peace Agreement for Bosnia and Herzegovina came into force, Bosnia and Herzegovina, formerly the Republic of Bosnia and Herzegovina, continued its legal existence as the state with the inner structure modified by the Constitution of Bosnia and Herzegovina within the internationally recognised borders. The total surface of Bosnia and Herzegovina is 51,129 km² with border length of 1,537 km of which 726.5 km accounts for the continental, 751 km for the river and 23.5 km for the sea border.

2. Spatial Planning System in Bosnia and Herzegovina

2.1 Evolution of Spatial Planning in the Country

Development of spatial planning in Bosnia and Herzegovina started after World War the 2nd by building a new Yugoslavia. In that period, town-planning schemes were oriented to reconstruction of existing towns or building new settlements on locations suitable for exploitation of mineral and energy resources. New towns were connected with the existing small settlements, or were built on totally new locations (Rakovica, Vogošća, Hrasnica, etc.). Also, the expansion of large cities was planned (Novo Sarajevo). Settlements were planned relatively isolated from the surrounding areas.

Certain aspects of spatial planning could be found in centralised economic and social development plans. Special attention was paid to the regional economic development, but the functioning of administrative authorities was put in the first place.

In 1967 and 1968, the Government of the Socialist Federal Republic of Yugoslavia (SFRJ), in co-operation with the United Nations Development Programme (UNDP), made a Plan for Spatial Development of the Southern Adriatic Region. The Plan included parts of Bosnia and Herzegovina, Croatia and Monte Negro and covered the surface of 12,074 km², which was inhabited by 581,000 inhabitants.

Preparation of the Spatial plan of Bosnia and Herzegovina started in 1974 and was followed by enacting the Law on physical planning. The work on making the plan lasted from 1977 to 1981.

The Law on social planning system and social plan of Bosnia and Herzegovina was enacted in 1978. The procedure of making the Spatial plan of the Republic had, however, to be formally reconciled with the new concept of spatial planning as an integral part of social planning. The same was with the other Republics of the SFRJ.

The Spatial Plan of Bosnia and Herzegovina was enacted in 1981 and covered, for the first time, the complete area of Bosnia and Herzegovina. Goals and strategic guidelines of the plan were completely in compliance with the modern international practice. After enacting the Spatial Plan of Bosnia and Herzegovina, spatial plans for municipalities, towns, small settlements and special purpose areas, were prepared.

During that period, there were no plans for wider areas, regions or coastal areas, and no documents were adopted.

2.2 Spatial Planning and Institutions

The spatial planning system

The spatial planning system is based on planning hierarchy, from the spatial planning of the country, as the supreme one, special purpose areas (national parks, maritime property) and municipalities to the detailed general urban plans. In spite of the long and important spatial planning tradition, the process of plan preparation, adoption and implementation had many weaknesses, resulting in the inappropriate spatial management. These weaknesses manifested through changes of area purpose, unplanned or illegal (wild) construction and uncontrolled urbanisation.

These changes also posed threat to the most valuable natural resources (i.e. agricultural areas, special purpose areas and their nearest environment) of which many were devastated.

Landscape, representing the valuable national heritage, ecological and tourist value, was endangered or permanently disturbed. Besides, the quality of living, especially in urban cores, deteriorated due to overpopulation, lack of infrastructure and lack of economic activities. This all increased the risk of natural catastrophes (especially earthquakes or floods).

The lack of planned building practice in the previous period resulted with a large number of illegally built structures (particularly in the big urban centres and on locations attractive for tourism and recreation). The process of recovery is a very complex one and represents a great challenge for the spatial planning system.

The planning system is facing many problems of which the most pronounced are: the lack of documentation (many documents simply disappeared); areas insufficiently covered with urban plans (due to the lack of stuff at local level); and some shortcomings of the plan implementation system (no respect for plans). These problems called for the reform of the planning system in the frame of which a new Law on spatial planning and land use was prepared at the level of the Federation of Bosnia and Herzegovina ("Official Gazette of Bosnia and Herzegovina", 2/06). The main objective of the reform was to insure a more efficient functioning of the system through the inclusion of the public in the process of decision making and implementation. The new Law also provides for a strong obligation to prepare Environmental Impact Assessment (EIA) and Strategic Environmental Impact Assessment (SEA), which has a great importance for the integration of environmental sustainability and protection in planning documents.

The preparation of the new Spatial Plan (further: SP), which is underway, is of great importance for Bosnia and Herzegovina. However, one of the biggest challenges will be the preparation and implementation of the National Strategy (further: NS), which will be complementary with the decisions from the SP.

Taking into account that the main goal of spatial planning is to ensure a long-term protection of agricultural and forest land, protection of watercourses and springs, and special natural, cultural and landscape values, particular attention should be given to inclusion of new concepts, such as landscape protection, valuation of area vulnerability (sensitivity and restoration), etc. Also, it is necessary to develop a modern spatial planning policy.

The priority of the NS in the field of spatial planning is:

- to make new and update the existing spatial plans on every level, which would include sustainable development; and
- to protect the natural and cultural landscape.

In order to accomplish these tasks, it is necessary to adopt the SP of the Federation of Bosnia and Herzegovina, including the spatial plan for special purpose areas (maritime domain). Also, general urban plans should be adopted at the local level (particularly for the coastal strip and municipalities that include national parks). In the process of updating the existing and adoption of new planning documentation, it is necessary to build capacities (especially at the local, i.e. municipality level) and establish relevant institutions to enhance capacity building and ensure public participation in decision making. Finally, valuation of planning documentation should be improved through the establishment of an integral information system. As to landscape protection, it is necessary to adopt a suitable policy, which would be based on the decisions of the European Council Convention.

Institutional Framework

State level

- Ministry of Foreign Affairs;
- Ministry of Foreign Trade and Economy.

Inter-entity bodies

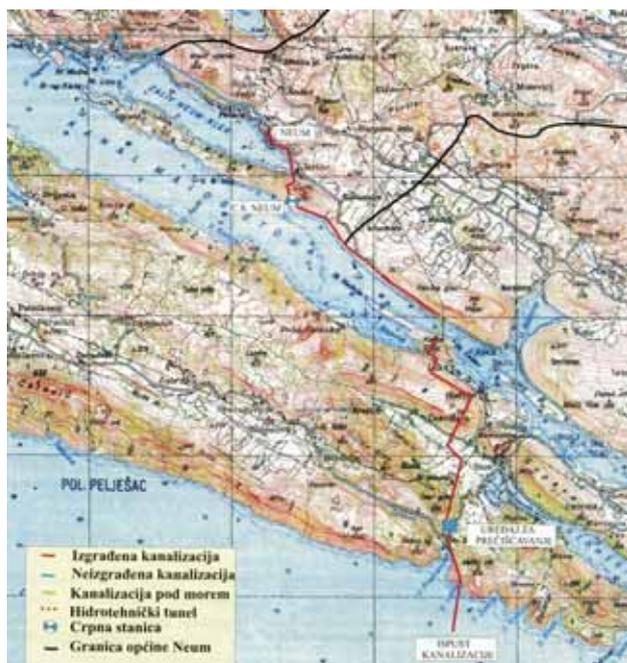
- Environmental Committee of Bosnia and Herzegovina;
- Commission for Water Management.

Entity level

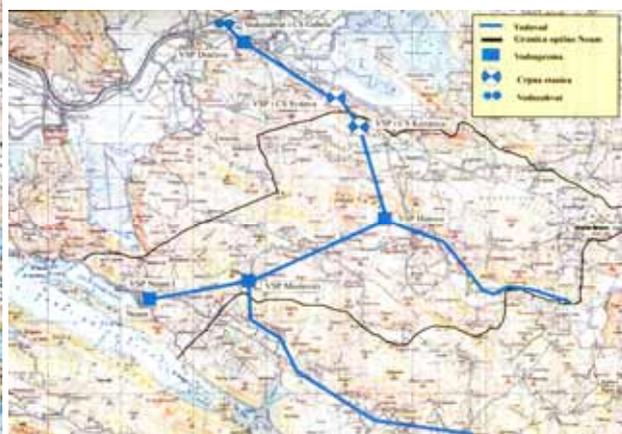
Institutional structure of the **Federation of Bosnia and Herzegovina** is defined by the Federal Constitution in 10 regional Cantons. The Federal Constitution regulates the joint responsibility of the Federal and Cantonal authorities for the environment protection, namely.

- The Federal Ministry of Physical Planning;
- The Federal Ministry of Environment and Tourism;
- The Federal Ministry of Agriculture, Water Management and Forestry;
- The Federal Ministry of Transport and Communication;
- The Federal Ministry of Health;
- The Public company for the Adriatic Sea Watershed (headquarters in Mostar); and
- The Public company for the River Sava Watershed (headquarters in Sarajevo).

The Federation of Bosnia and Herzegovina is composed of 10 Cantons. According to the Constitution of Bosnia and Herzegovina, the jurisdiction between the Federation and Cantons is shared with the exception of specific areas being under exclusive jurisdiction of the Canton (construction sector). The Cantons are pursuing self-management through their own legislative councils, executive bodies and administration of justice. The main functions and goals assigned to the Canton concerning waters are issuing of water use licences and allocation of water resources under Cantonal jurisdiction (i.e. drainage, irrigation, water supply – see Map 1 and Map 2, navigational watercourses and hydro-energy and water protection).



Map 1: Water Supply System



Map 2: Sewerage System

Relevant authorities for the environment protection in **the Republic of Srpska (RS)** are:

- Ministry of Physical Planning, Construction and Ecology;
- Ministry of Agriculture, Forestry and Water Management;
- Ministry of Science and Technology;
- Ministry of Health and Welfare;
- Department for Water Management of the RS; and
- Water Management companies.

Local Institutional Structure

In **the Federation of Bosnia and Herzegovina**, the following institutions are responsible for the protection of environment at the municipality level:

- Public Service Department; and
- Public Service companies.

In **the Republic of Srpska (RS)**, institutions responsible for the environment at the municipality level are:

- Public Service Department; and
- Public Service companies.

2.3 Public Participation

Public participation is a fundamental form of citizens' participation in the decision-making process. Public participation is not only the issue of democracy, but also the issue of human survival and the social, cultural and economic development.

In Bosnia and Herzegovina, public participation in the decision-making process related to the environment is of crucial importance for the prevention of irresponsible behaviour of the government, individuals and companies. Considering specific geographical features of Bosnia and Herzegovina and its natural wealth, which represents a significant development potential, the role of public in making decisions in the field of environment protection is very important. It is usual for the developed countries, but also for the countries aiming to the regional economic and political integration, to encourage public initiatives through the concept of "public participation in decision-making". In the field of environment protection, of particular importance for the country is the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the Aarhus Convention, 1998). Of no less importance are the EU Directives 97/11/EC, 2003/35/EC, 85/337/EEC, 96/61/EC, 2003/4/EC and the Directive 90/313/EEC. These Directives provide instructions for public participation on every stage of environmental impact assessment, as well as instructions about what the countries should do in the case when a project may have a trans-boundary impact on the environment, especially on waters.

As for Bosnia and Herzegovina, lawmakers, when preparing different documents have not foreseen participation of the public in decision-making. The only exception is a new Law on local self-management in the RS, and the Statutes of several developed cities in Bosnia and Herzegovina. In Bosnia and Herzegovina, a referendum, the civil council and local communities are crucial ways of including the public directly in the decision-making process. However, this inclusion of citizens is only formal as in reality, they are facing the problems of the system non-functioning mainly caused by the inertness and lack of interest by citizens.

On the other hand, a large number of citizens still do not believe that it could be possible for them to play an active role in the decision-making process. Doubts in the corrupted decision-

making system, lack of information, as well as weak influence of citizens' earlier efforts for change decrease their willingness to participate. Slowness of the majority of local authorities in relation to the inclusion of the civil society in decision making creates a sense of insufficiency of civil efforts. Also, it has a negative impact on the relationship between the authorities, citizens and economists, being of crucial importance for the environment protection.

Transparency of the authorities and companies (as potential water pollutants) and their obligation to inform the public about ecological issues needs to be understood as a constitutional right of the citizens and a constitutional obligation of these authorities. Several laws, including the Law on public informing, and in particular the Law on free access to information, regulate these rights and obligations. The Law on the local self-government in the Federation of Bosnia and Herzegovina does not include such solutions, but Cantonal laws on the local self-government have several provisions regulating directly or indirectly the civil rights. These laws, however, differ significantly from Canton to Canton.

In the RS, however, the government and local authorities are obliged to inform the public about certain issues. This provision is contained in the Rules of the activities of the National Parliament of the RS and in the Law on the local self-government. According to the latter, the local unit authorities are obliged to inform the public about every phase in the preparation of any document, which might be of interest for the public. This may be of particular importance for the inclusion of the public in the process of preparation of the Local Ecological Action Plan (LEAP) as the first step towards the public participation in identifying ecological issues and finding adequate solutions. Finally, it can be concluded that the mechanisms of public informing are insufficiently developed at almost all levels.

The most efficient way of public participation can be achieved through non-governmental organisations (NGOs). In reality, however, the co-ordination of the non-governmental sector in Bosnia and Herzegovina and representatives of the local administration and companies, as potential environment polluters, is insufficiently developed. In particular in the planning phase, this relationship is characterised by the absence of strategic communication about issues of importance for the local community. There is no doubt, however, that the new modern law on NGOs supports activities and the role of NGOs. Even if the substantial level of communication between NGOs and the local administration/companies has been achieved, their co-operation in the field of "citizens' pressure on governmental bodies" is still not strong enough. Obviously, with joint actions of all NGOs, there would be much more productivity, and their voice would be much more appreciated. In conclusion, it is necessary for NGOs to improve their co-operation with organisations dealing with environment protection (institutes, scientific institutions, universities), mass media, Parliament representatives and governmental bodies active in this field.

2.4 Development Control in the Federation of Bosnia and Herzegovina

The "Law on spatial and land-use planning" ("Official Gazette of the Federation", 2/06) regulates as follows: land-use planning at the Federal level through preparation, adoption and implementation of planning documentation; the form and contents of planning documents; monitoring of planning documents implementation of importance for the Federation; monitoring of Law implementation; and imposing of penalties for organisations and individuals. According to this Law, planning is considered as the management, use and protection of the Federal territory as a particularly valuable and restricted welfare. Management, land-use and protection are ensured through the implementation of planning documents, based on the global approach to spatial planning and principles of sustainable development.

Planning at all Federal levels should be harmonised with specific provisions for the protection of environment, cultural-historical heritage, archaeological and natural heritage, soil, air, water and human health. Also, planning should be in accordance with regulations for the protection of energy, mining and industrial facilities, infrastructural and communicational facilities, sports and tourist facilities and the relevant infrastructure. Planning in the Federation comes within the competence of the Parliament and Government of the Federation of Bosnia and Herzegovina, legislative and executive Councils of Cantons and departments responsible for the local self-government units through making planning documents, and other documents and provisions as determined by this Law. Scientific appropriateness of the documentation falls under the competence of the Federal and Cantonal administrative bodies, Administration departments in charge for the local self-government units authorised for spatial planning, and organisations licensed for preparation of this documentation.

Decision to start preparing planning documentation

The Decision to start preparing planning documentation brings the Parliament, Cantonal legislative body or municipal council. The Decision regulates spatial planning of areas with specific characteristics and provides a detailed spatial planning scheme depending on the allocation of land.

After the adoption of the Decision to start prepare planning documentation, the legislative bodies adopt, if necessary, the Decision on illegal construction in the areas or parts of area for which the plan is made. A Decree is applied until the detailed spatial planning scheme is adopted, and that is no longer than two years.

Modifications of planning documentation are done according to the proceedings and a scheduled process of preparation and adoption of that document. The Decision to start preparation of planning documentation is important for the Federation and announced in the “Official Gazette for the Federation of Bosnia and Herzegovina”.

Lead institution to prepare spatial planning documentation

Selection of a lead institution to prepare spatial planning documentation will be done in accordance with the Law on public tenders of Bosnia and Herzegovina (“Official Gazette of Bosnia and Herzegovina”, 9/04). The relevant Ministry will be the lead institution in the case the Parliament is responsible for its adoption. The lead institution to prepare spatial planning documentation for the two or more Cantons will be selected jointly by the Cantonal legislative bodies. A tender for the lead institution to prepare spatial planning documentation for a Canton or Municipality is announced according to the Cantonal Law. On Government’s suggestion, the Ministry determines conditions, which have to be fulfilled by licensed economic institutions and other legal organisations interested in the preparation of spatial planning documentation.

Obligations of the lead institution

The lead institution is obliged to prepare spatial planning documentation in accordance with the methodology relevant for the preparation of planning documents, regulations adopted according to the Law, Decision to start preparation of planning documentation, and other regulations and acts important for the area for which these documents are going to be made.

Adaptation of spatial planning documentation

Spatial planning documentation for a narrow area should be adjusted to spatial planning documentation for a wider area. However, in the case there is no adjustment, spatial planning documentation for the wider area is used.

Introduction of spatial planning documentation in practice

The procedure of the adoption and introduction of spatial planning documentation in the Federal legislation is the same as the procedure of the adoption and introduction of Federal Laws. A Canton itself in accordance with Canton's regulations will determine the procedure of introduction of spatial planning documentation in Cantonal legislation. After the adoption of the draft spatial planning documentation, every document will be put on public debate upon conditions and within the period of time as determined by the Decision to start preparation of spatial planning documentation, and that is within three months.

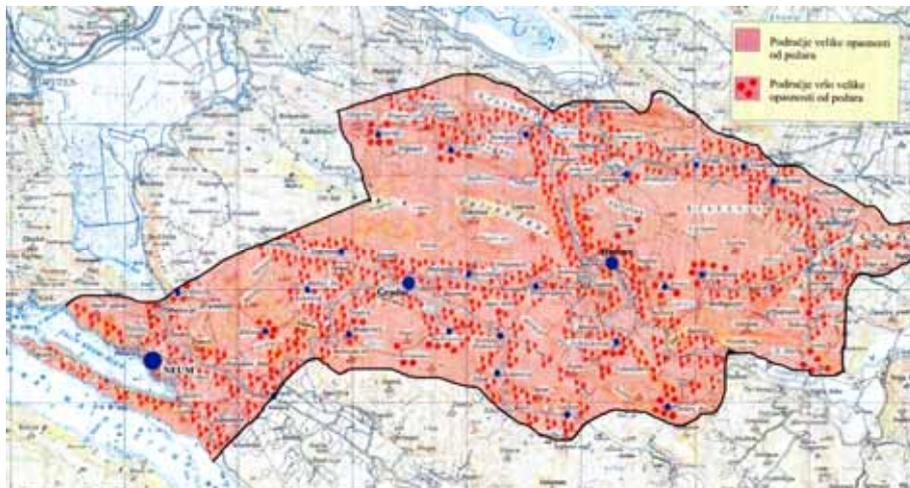
Unique information system

In order to enable collection, processing and use of spatial planning information, the responsible Ministry, jointly with other relevant ministries, establishes and maintains a unique information system. The unique information system includes a range of facts and information relevant for the whole Federal region. On the suggestion of the Ministry, the Government defines the contents of and lead institutions to manage information system, selects a methodology of information collection and processing, and creates a standardised template (file format).

File format

A standardised file format will include:

- Information about Federal spatial plan and other Federal planning documentation;
- Information about Cantonal spatial and urban plans;
- Information and a copy from the land-register on natural resources with quantitative and qualitative data;
- Information about infrastructure system;
- Information about land for construction;
- Information about architectural and natural heritage;
- Information about threats to environment (illegal construction, pollution of land, water, air, etc.);
- Information about areas where danger of consequences caused by natural and human activities (natural disasters, wars) is significant (seismic characteristics of land, stability of land, areas threatened by floods, fires – see Map 3, or over-pollution caused by industrial sector, etc.);
- Information about companies and corporations working in the field of spatial planning; and
- Other information relevant for spatial planning and information system management, which are compatible with the information provided by the Bureau of Statistics.



Map 3: Fire-prone Areas

Building land

At the Federal level, the use of land for building has to be in accordance with the Federal planning documentation and falls under jurisdiction of the Federation. Building understands construction of a new structure, structure reconstruction and enlargement, superstructure, reclamation and other related works in the area of building, such as: removal of the existing structure, changing of the building or land purpose and building of temporal structures. These works exclude current maintenance of the building area, including reclamation and building conservation.

Building and other related works are allowed only in urban areas and in the building area. The exception is by spatial plans foreseen building, which can be allowed outside of urban areas, including:

- Highway infrastructure (traffic, energy, water-power engineering, communications, etc.);
- Health services, recreation and sport facilities;
- Defence and military facilities;
- Residential and farm structures for agricultural production or rural tourism;
- Exploitation, use and allocation of natural resources (minerals, forests, waters, agricultural land, etc.); and
- Municipal and other structures (waste dumps, cemeteries, monuments, etc.).

Urban (building) consent

Building is allowed if it is in accordance with planning documentation and if it fulfils conditions determined by special laws and regulations. Investor requests the building consent from the Ministry, including:

- information about the purpose, location and form of a building;
- planning documentation on which the building consent is based, including building land borders, i.e. building allotment;
- building consents and conditions issued by competent bodies and departments;
- urban-technical conditions;
- findings of the geotechnical land research (if and where necessary);
- environmental licence (if requested by law);
- special conditions determined by law or based on the law;
- obligations towards the neighbours and other persons' rights, especially rights of disabled people;
- all expenses of building land arrangement, conditions for land arrangement, if a construction is going to be built on the unarranged land, and other user's obligations arising from the land use; and
- information and conditions of importance for the building.

Once obtained, the building consent is considered valid if the building licence is issued, except in cases where building is determined by special laws. The building consent is valid for the whole building allotment, which is assigned for the building by a plan.

Building licence

Building can start only upon the receipt of a building licence. The building licence is not needed for a permanent building or maintenance and reconstruction of a damaged structure. The building licence is valid for the entire period of building. The relevant Ministry issues the building licence on the name of a person requesting it.

The relevant Ministry issues the building licence without prior building consent in the case of rehabilitation or reconstruction of architectural heritage damaged or destroyed by the war. By the decision of the Commission for maintenance of national monuments, and in accordance with Annex 8 of the General Peace Framework Agreement for Bosnia and Herzegovina, such architectural heritage should be classified in the category of national monuments or listed as a national monument. In the case when building is foreseen on international borders, the building licence will be issued based on the agreement between the two or more states.

Licenses for special cases of building are as follows:

- Licence for a complex building: licence for a complex building can be issued for one or more structures being part of a complex building. By the general building licence, parts of a complex building can, on the request of investor, be considered as functional or/and technical connections between the parts of a complex building, and the licence can be requested for each part separately. The main project for part of a complex building, for which the building licence is issued, must be in accordance with the preliminary design of the whole complex building, urban consent, relevant regulations and particular laws. Upon receipt of the general licence, investor can start with preparatory works.
- Licence for preparatory works: preparatory works preceding the building are realised on the basis of building licence.
- Temporal building licence: building on temporal locations (for the equipment or alike) should have a temporal building licence.
- Reconstruction of the already existing structures: investor should have building licence, if he/she is going to reconstruct the already existing structure. The procedure of obtaining such a licence should be in accordance with the relevant law on issuing of building licences.

Certificate of occupancy

The built structure or its parts representing the economic and technical whole can be given operating licence only after the relevant Ministry has issued a certificate of occupancy. Certificate of occupancy is issued after technical control has been carried out. Technical control will decide on whether the structure is built in accordance with technical regulations and standards. The Ministry appoints a committee for technical control (further: the committee), composed of a president and members of the committee.

Removal of the built structure

Removal of the built structure or its parts (if not based on inspector's decision), is done on the basis of removal licence.

Inspection

The inspection of planning documentation falls under the jurisdiction of the Ministry and Federal urban inspection, i.e. the Federal urban inspector.

- The Federal urban inspector is responsible for:
 - Control of urban planning documentation;
 - Implementation of the Federal spatial plan and measures and the Regional spatial and urban plans; and
 - Implementation of this law in areas of significant importance for the Federation.
- The Federal building inspector is entrusted with the control of building for which the Federal Ministry issues a building licence. In the case of irregularities, the Federal building inspector may ask for modifications, stop the building or even order removal of the same.

Law on environment protection includes decisions related to issuing of environment licences. The Law also foresees the obligation to perform the Environmental Impact Assessment (EIA), which is aimed at the prevention of negative impacts of projects on the environment. During preparation of this new set of laws, the experts have taken into account all relevant EU Directives, including the Council Directive 97/11/EC, so that the new EIA procedure is completely in accordance with this Directive.

Since the Law on environment protection defines only the form of protection, it will be necessary to adopt several decisions so as to enable the EIA procedure implementation. To that end, the following regulations should be considered:

- Criteria to assess the need for EIA;
- Documents to be presented to request EIA;
- EIA Study contents;
- Guidelines for the EIA Study preparation;
- Instructions for the EIA implementation;
- Authorised institutions and experts to prepare the EIA Study; and
- Estimation of expenses (including the advance payment) the investor will have to pay to the Ministry for this work.

In the chapters that follow, the EIA procedure is explained on the example of the World Bank / METAP project “Urgent strengthening of environment institutions in Bosnia and Herzegovina” – Section 3 on Environmental Impact Assessment.

The Law on environment protection regulates procedure of issuing environment licences, which is in accordance with the most important EU Directives, including: the IPPC Directive, which provides an integrated approach to establish pollution prevention from stationary “installations”; the Seveso II Directive, which aims to prevent major accidents involving dangerous substances and limit the consequences to people and the environment of any which do occur; and the EIA Directive (EU legislation) on Environmental Impact Assessment of the effects of projects on the environment.

A separate chapter of this Law deals with EIA, more precisely with the purpose of EIA, EIA preparation, public debate on EIA and preparation of EIA Study as a basic document for issuing the licence. The Law also foresees the Strategic Environmental Assessment (SEA), which has to be done based on regulations and decisions brought by the Federal and Cantonal authorities with the aim to improve the quality of environment and human health.

The existing administrative structure in Bosnia and Herzegovina is very complicated. The main shortcoming in issuing licences is the unclear assignment of duties at different levels. The Law on environment protection defines explicitly institutions and their obligations relative to EIA.

According to this Law, the Federal Ministry of spatial planning and environment, and the Ministry of urbanism, communal works, building and ecology of Bosnia and Herzegovina, are competent for the EIA procedure. In the RS, responsible authorities are the local and regional authorities of the entities. In the Federation of Bosnia and Herzegovina, all stakeholders at Cantonal and Federal level should be involved.

The Law on environment protection defines that plants and factories can be built and put into operation only after having obtained environment/ecology licence issued in accordance with regulations of this Law. Environment/ecology licence provides for a high level of environment protection including the protection of air, water and soil. In the case when other licences are also requested (i.e. urban licence, building licence or certificate of occupancy), then all these

licences will be issued as a joint environment/ecology licence. In such a case, all the bodies competent for issuing licences will be included in the process of issuing the environment/ecology permit. In order to obtain urban licence, or any other licence, the SEA is obligatory. Other environment or sanitary analysis/licences (with the exception of EIA) are not obligatory prior to starting building.

The EIA Study should be prepared to assess the impact of a project on environment. Monitoring ensuing from the EIA Study is a prerequisite for issuing of environment/ecology licence. Monitoring results should be taken into account during the decision-making and management process.

According to the Law, environment inspector has a free access to all parts of a factory so as to inspect and control the relevant documentation, machines and materials, and to take samples. In the case that the factory does not work as foreseen by the environment/ecology licence, inspector is authorised to take measures for the correction of irregularities. In the case of repeated violation of regulations, or of serious danger to human health and environment, inspector shall request the responsible ministry to cancel the environment/ecology licence.

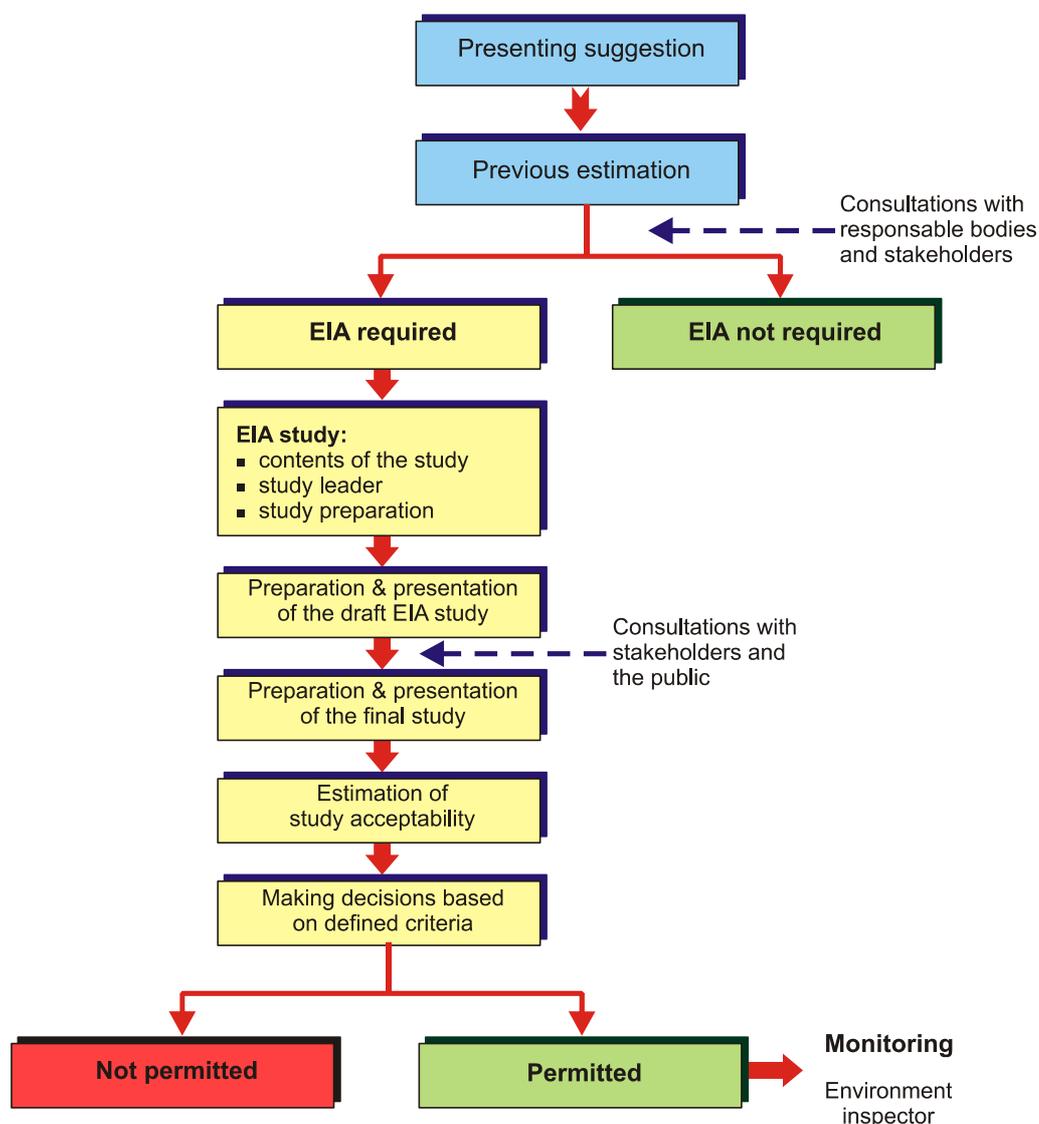


Figure 1: Graphical Presentation of EIA Procedure According to the Law on Environment/Ecology Protection

If the SEA Study confirms the impact of a project of a neighbouring country on the environment, a separate chapter should be prepared within the Study to elaborate this impact. Upon receipt of the Draft SEA Study, the Ministry announces a public notice containing:

- description of a project with relevant information about its possible transboundary impact;
- possible decisions; and
- period of time during which a country/entity, which may be influenced by a project, would participate in the assessment procedure of that impact.

If a country agrees to participate in the procedure, the competent ministry will inform it about next steps. The country should also send suggestions to be included in the SEA Study.

Considering that the Law has recently been adopted in the Republic of Srpska, and that the Federation of Bosnia and Herzegovina is still waiting for its adoption, the details of this procedure are still not defined. SEA has not been prepared so far.

2.5 Land Policy in Relation to Coastal Zone Policy

The coastal area of Bosnia and Herzegovina is only 24 km long, with a jagged coastal belt from Neum to Klek. The sea of Bosnia and Herzegovina borders with the sea of the Republic of Croatia.

After the Dayton Peace Agreement, Bosnia and Herzegovina has been established as a country composed of two entities, namely: the Federation of Bosnia and Herzegovina, and the RS. The Federation is divided into 10 Cantons. The coastal region belongs to the Herzegovina-Neretva Canton (HNC), encompassing the area of 3,318 km² and 9 communities. The coastal region of this Canton includes the town of Neum (see Map 4).

Laws and regulations in the Federation of Bosnia and Herzegovina are adopted at the level of the Federation and Cantons. Legislative bodies, the Assembly of the Federation of Bosnia and Herzegovina and HN Canton, adopt, on the suggestion of the Government of the Federation and Cantons, the legal acts, related to:

- Constitution of the Federation of Bosnia and Herzegovina;
- Law on spatial planning and land use (“Official Gazette of FB&H”, 2/06);
- Law on waters (“Official Gazette FB&H”, 70/06);
- Law on environment protection (“Official Gazette of FB&H”, 33/03);
- Law on nature protection (“Official Gazette of FB&H”, 33/03);
- Law on air protection (“Official Gazette of FB&H”, 33/03); and
- Law on waste management (“Official Gazette of FB&H”, 33/03).

Table 1: Surface and Population of the Herzegovina-Neretva Canton Municipalities

Town	Surface in km ²	Number of inhabitants in 1991
Mostar	1,300	126,628
Čapljina	249	27,882
Čitluk	181	15,083
Jablanica	289	12,691
Konjic	1,101	43,878
Neum	230	4,325
Prozor-Rama	477	19,760
Ravno	250	1,500
Stolac	541	18,681
Total	3,318	144,070

Source: Population of Bosnia and Herzegovina, 1995



Map 4: Administrative–Political Division

2.6 Urban, Rural and Transport Planning/Policy

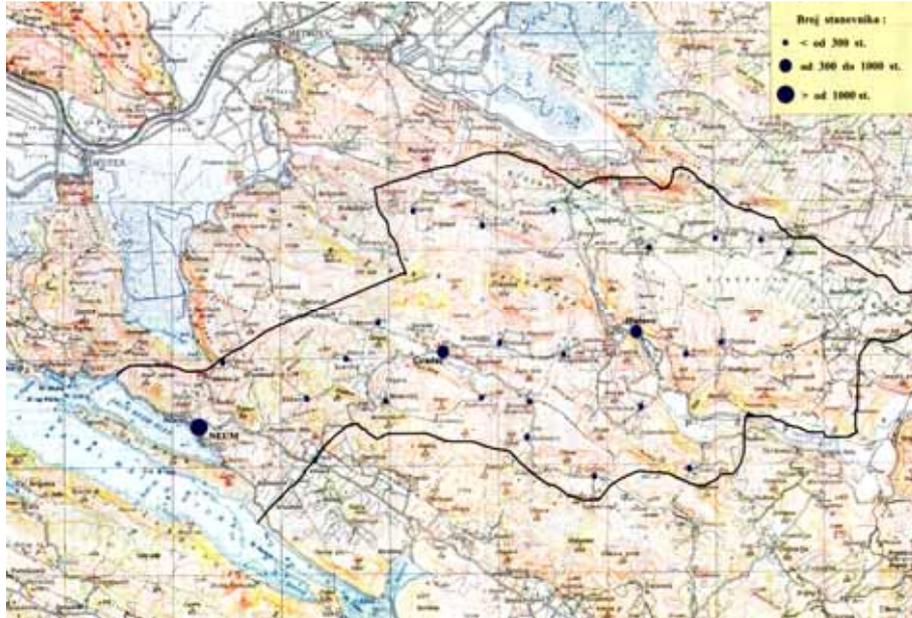
Population and Urbanisation of Towns and Cities

In the period of socialism, and particularly in the first decades after World War the 2nd, the increase of population in Bosnia and Herzegovina was intensive. The following table provides information on population increase in Bosnia and Herzegovina during the last 70 years.

Table 2: Population Increase in Bosnia and Herzegovina from 1921 to 1991

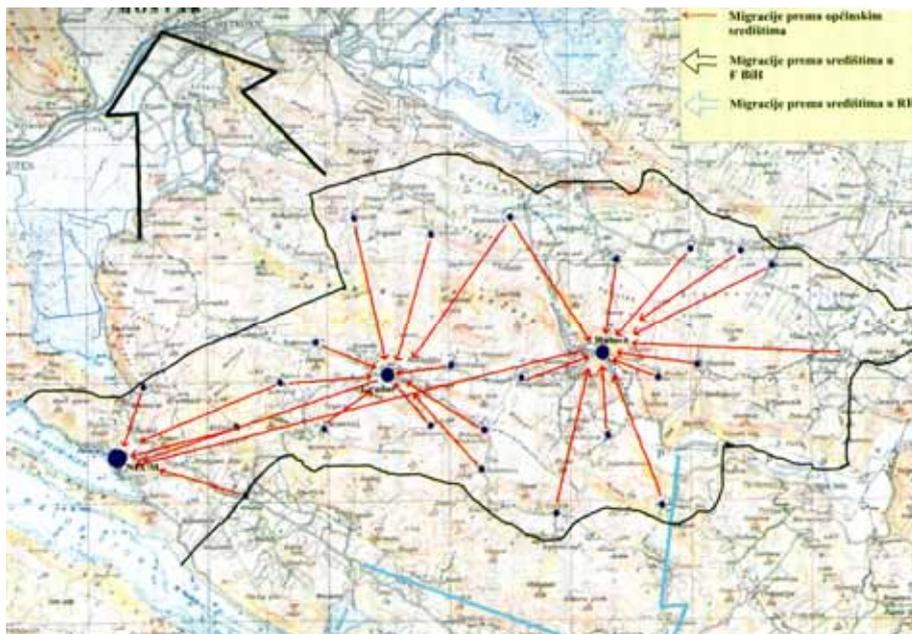
Year	Population	Period	Increase of population	Rate of increase
1921	1,890.440	1921-1931	433,155	22.9
1931	2,323.550	1931-1951	411,000	17.6
1951	2,734.514	1951-1961	543,434	19.8
1961	3,277.948	1961-1971	468,163	14.3
1971	3,746.111	1971-1981	370,280	9.9
1981	4,116.439	1981-1991	260,594	6.3
1991	4,377.033			

As it can be seen from the above table, the increase of population in Bosnia and Herzegovina during the 60s of the last century was 19.8%, while in the 80s, it was 6%. The increase of population slowed down when a certain level of urbanisation and agrarianism had been achieved. Besides, the global stability and urbanisation, as well as their more intensive and permanent spread contributed to this trend. In the last decades of the 20th century, the number of population that moved from Bosnia and Herzegovina increased. The natural conditions, relief configuration, hydrographic spatial features and population arrangement influence considerably the urban and infrastructural network (see Maps 5 and 6).



Map 5: Movement of Population

It should be noted that the population number in the majority of communities was decreasing for a long time. These communities situated along the western, south-western and eastern border areas of Bosnia and Herzegovina, together with the communities with the stagnating, or slightly increasing population number, form the emigrant ring around the demographic, more dynamic, central part of Bosnia and Herzegovina. By 1991, faster increase of population number was evident in the central part of the state. The same trend could be seen in the enclaves of spatially connected communities in the most north-western parts of Bosnia and Herzegovina (towns of Bihać, Bosanska Krupa, Cazin and Velika Kladuša).



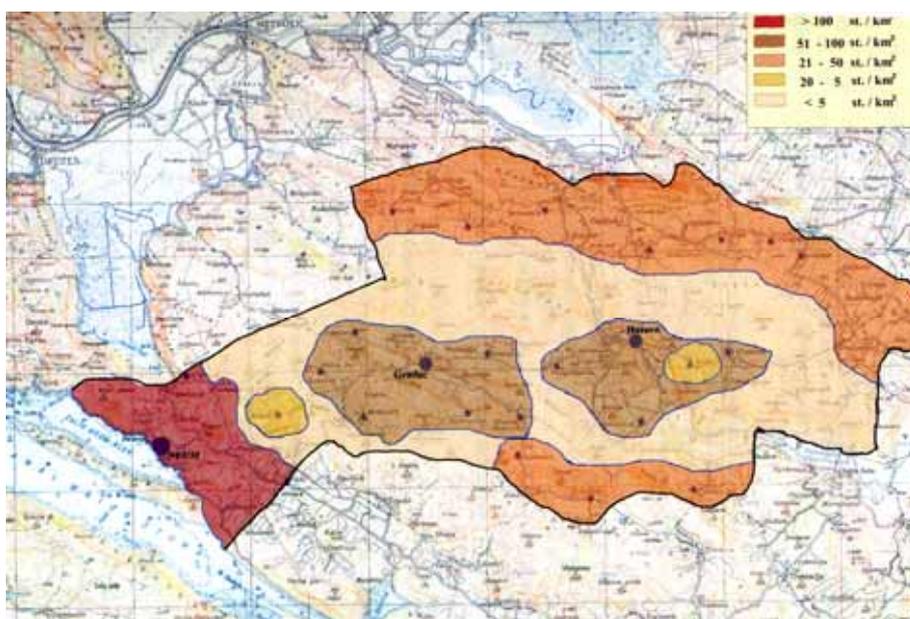
Map 6: Migration of Population

The process of faster migration from the rural to urban centres and bigger cities continued more intensively between the two last censuses. Population number in rural areas decreased at the same pace, because of distinction of rural areas. Migration and demographic concentration continued in this period too, while the rate of population number increase in Bosnia and Herzegovina was in stagnation. In the table that follows, changes in the demographic concentration from 1971 to 1981 are presented.

Table 3: Changes in the Demographic Concentration from 1971 to 1981

	Surface (km ²)	Population	Surface (%)	Population (%)	Surface (km ²)	Population	Surface (%)	Population (%)
0-25	10,151	170,600	19.8	4.5	10,151	164.80	19.8	4.0
26-50	13,022	531,300	25.5	14.5	12,088	484.10	23.6	11.7
51-100	15,095	1,149.50	29.5	30.7	13,248	1,052.90	26.0	25.5
101-200	12,054	1,675.00	23.6	44.7	12,786	1,719.50	25.0	41.8
> 200	807	219,700	1.6	5.9	2,856	703	5.6	17.0
Total	51,129	3,746,100	100.0	100.0	51,129	4,124.30	100.0	100.0

As it can be seen from the above table, the process of polarisation onto zones of concentration and depopulation was extremely strong from 1971 to 1981. Population number in areas with less than 200 inhabitants/km² increased in this period for more than 300%. In 1981, areas with low population concentration, i.e. with 26-50 inhabitants/km², and very rarely populated zones with 0-25 inhabitants/km², encompassed 43.4% of the territory, i.e. 15.7% of the republic population. Ten years earlier, however, 19% of population inhabited 45.3% of the area. The highest population concentration is noted around big cities, in the river valleys and in the mountain basins (see Map 7). It can be concluded that settlement pattern in Bosnia and Herzegovina is directly influenced by nature, urban network and social and economic development.



Map 7: Population Density

Industrialisation, de-agrarisation and urbanisation

In the socialism, the development of Bosnia and Herzegovina was for a long time strongly influenced by three mutually subordinated processes, namely: industrialisation, de-agrarisation and urbanisation. Inadequately managed, uncontrolled and unrecognised in terms of cause-and-effect relationship, these processes, with significant regional differences as to allocation of natural resources, caused a strong and permanent migration of population and its redistribution, which manifested in:

- depopulation, abandonment of villages and other rural areas; and
- polarisation of demographic and development processes in some parts of Bosnia and Herzegovina, particularly in the cities and some communities.

This generated high expenses for city functioning, disappearance of villages and irrational spatial planning.

A sudden industrial development caused a large migration from the rural area. The lack of care for agricultural development and the lack of stimulation for family houses building caused, among others, a very fast de-agrarisation. From 1953 to 1961, non-agrarian population increased to 51%, and in 1991, it reached 86.9%. In 1991, only 13.1% of population in Bosnia and Herzegovina was agrarian.

Migrants from the villages settled on the outskirts of towns, or near the towns with a developed road network. Soon, it became evident that the development of industry did not follow the trend of de-agrarisation and urbanisation. Industrialisation was the priority, while urbanisation was hardly mentioned in practice. This situation remained the same for Bosnia and Herzegovina during the whole period of socialism.

In 1947, the employment rate was 10, meaning about 6.5%, and in 1980, it raised to 20.4%. As it can be seen from the following table, this resulted in a dynamic increase of non-agrarian population, while the number of urban population raised slower.

Table 4: Development Rate of Non-agrarian and Urban Population (in %) from 1948 to 1981

	1948	1953	1961	1971	1981
Non-agrarian population	28.2	37.8	49.8	63.5	82.7
Urbanised population	14.3	16.3	21.0	27.9	36.2

The majority of non-agrarian population lived on the outskirts of towns, or formed small settlements and villages, and commute daily, weekly or periodically for work.

Settlement system

All settlements in ex-Yugoslavia and in Bosnia and Herzegovina were divided into two groups of settlements: villages and towns. A settlement counting for 2,000 or more inhabitants, of which more than 90% were non-agrarians, were considered as towns.

In spite of the decreased participation in the total Republic population number (in 1971, it was 64.57%), many settlements dating from 1991 still represent the smallest rural settlements with 2,000 inhabitants (50.38%). Significant changes, however, were evident for towns with 10,000 to 20,000 inhabitants. Their participation in the Republic population number increased from 1.93% to 7.87. The middle-sized towns with 20,000 to 50,000 inhabitants doubled their participation, i.e. from 3.85% to 6.39%, while participation of bigger towns was only slightly decreased, i.e. from 5.23% to 4.75%. Finally, two biggest cities, Sarajevo and Banja Luka, doubled their participation in the total Republic population number, i.e. from 6% to 13.04%. As it can be concluded from the above-mentioned data, population structure in Bosnia and Herzegovina has improved.

A number of 36 biggest towns in Bosnia and Herzegovina, counting for 20,000 and more inhabitants, are irregularly dispersed, meaning that the index of “the nearest neighbour” is 0.94%. On the other hand, the group of 7 biggest towns with regional and sub-regional poles of development and “the nearest neighbour” index of 1.37%, shows a tendency of forming a favourably equal area distribution.

Urbanisation and industrialisation had a strong influence on population system in Bosnia and Herzegovina. Industrial development was primarily characteristic for towns, because they disposed of working power and infrastructure. Primarily bigger towns, with ever enlarging gravitational zones, played an important role in the socio-economic transformation of Bosnia and Herzegovina. In addition to Sarajevo, a strong industrial geo-demographic development generated several regional centres disposing of all urban-development features (i.e. Mostar, Banja Luka, Tuzla and Zenica). In 1991, the regional centres with a corresponding number of sub-regional centres, created a hypothesis for a more equal development of the Republic. On the other hand, there was a lack of medium- and small-sized towns. Smaller urban places played a significant role in the socio-economic transformation of the region. They differed among themselves according to the degree of centralisation. Namely, some urban centres took over the functions belonging to them according to the settlement system. Still, in Bosnia and Herzegovina, the role of larger cities was emphasised by 1991.

Towns – population and economic activities in the area

Population number and economic development of towns were strongly influenced by transformation of the area structure. The process of urbanisation and formation of settlement system was particularly pronounced in towns with 10,000 and more inhabitants (medium-size and big towns). Population of these towns increased in the first decades following World War the II. In the last few decades, however, this increase logged significantly behind urbanisation increase, because settlements with 2,000 to 10,000 inhabitants were influenced by urbanisation process, too.

Population system in municipalities

According to the administrative organisation, there are 109 municipalities in Bosnia and Herzegovina. As the basic territorial units, these municipalities differ totally among themselves in relation to the development, size, population density, economic development, employment rate and population qualification structure. The relationship between the municipal population and population living in municipality centres is very different. Only in the large cites, most of population lives in the city centres. Massive migration, as mentioned before, started in 1945 and lasted until the aggression on Bosnia and Herzegovina. Migration was also intensive in the municipality area. The “local migration movements” toward municipality centres were caused by economic reasons. Municipality centres were economically developed when compared with village settlements where even agricultural production was neglected. This resulted in disproportion, i.e. polarisation, between municipality population and concentration of population in the centres and other parts of municipality area. Usually, town centres were economically developed and disposed of developed administrative and public services.

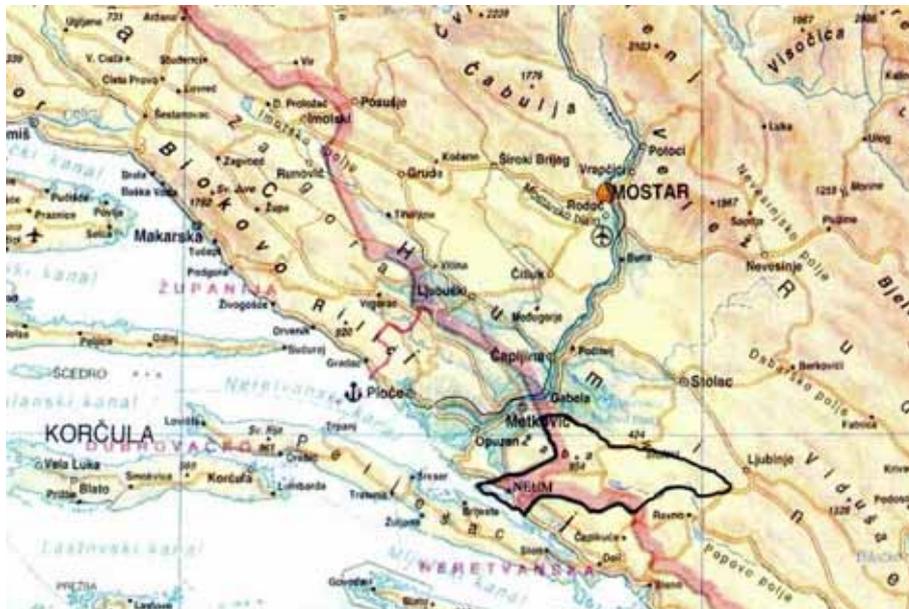
Agriculture and rural development

A modern concept of integrated approach to rural development, where agriculture plays the most important role, becomes dominant in some European countries outside of the EU. As for Bosnia and Herzegovina, development of agriculture in rural areas is not treated *per se*, but only as part of an integrated approach to rural development.

Even today, agriculture is the basic economic activity in the rural region of Bosnia and Herzegovina. As the largest economic sector, agriculture supports employment and decreases poverty of the rural population. Although not sufficiently developed, agriculture plays an important role in returning the pre-war population to and keeping the present population in the country.

Protection and settling of rural areas

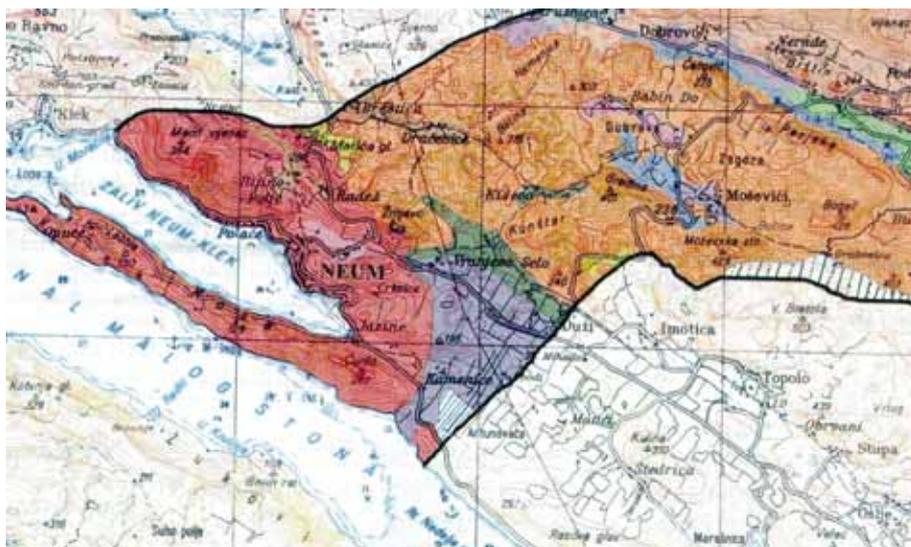
Agriculture is important for the sustainable development of nature, because it motivates people to live in the country and be engaged in agriculture. Due to war consequences, agriculture in Bosnia and Herzegovina provides limited possibilities for employment. On the other hand, however, permanent development of technology and widening of agricultural land favours modernisation of domestic production. During the 70s of the last century, urban development of the municipality of Neum was result of tourist development and geographical position of Neum as a transit centre on the Adriatic motorway between Ploče and Dubrovnik (see Map 8).



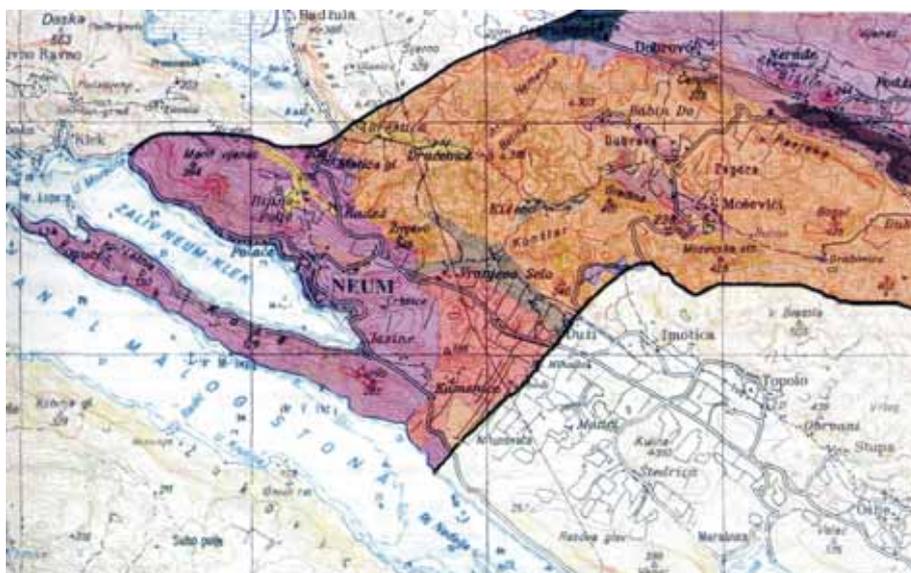
Map 8: Geographical Location of Neum Community

In the mid 60s of the last century, a project was prepared to assess the coastal potentials of the wider coastal belt of this part of the Adriatic (see Maps 9 and 10). Under the auspices of the United Nations, a project started for the South Adriatic, during which, in the period from 1967 to 1969, the Regional spatial plan was made providing the guidelines for the use of this part of the Adriatic coast.

The other important task for the agricultural sector is to start organic production. This kind of production can be realised in most of the territory of Bosnia and Herzegovina, which has all preconditions for the production of ecological products.



Map 9: Pedological Characteristics of Wider Coastal Area of Neum



Map 10: Valorisation of the Wider Coastal Area

Transport infrastructure

Road infrastructure and transport

Owing to its geographical position, Bosnia and Herzegovina is the shortest transportation link between the Middle Europe and the Adriatic Sea. But, until 2003, when the first 11 kilometres of the modern highway were constructed, Bosnia and Herzegovina did not benefit from its position.

The network of highways in Bosnia and Herzegovina is 3,788 km long, of which 2,024 km falls to Bosnia and Herzegovina and 1,764 km to the RS (see Map 11). In Bosnia and Herzegovina, 7,4 km of the highway falls to 100 km². The network of regional roads includes 4,842 km of which 2,118 km in the RS and 2,724 km in the Federation of Bosnia and Herzegovina. The length of the local roads is about 14,000 km, so that the total length of the road network in Bosnia and Herzegovina is about 22,630 km of which 14,020 km are asphalt roads. The length of the European roads (E-roads) in Bosnia and Herzegovina is in total 995 km (E-59, E-65, E-

73, E-661, E-761 and E-762). In most sections, European roads running through Bosnia and Herzegovina do not allow the desirable driving speed due to the short radius of curves, high and frequent ascents, passing through settlements and towns, and inadequate road maintenance.

The period from 1996 to 2003 was characterised by the recovery from war damages. Highways, bridges and tunnels were reconstructed mostly from donations. In the frame of the project “Urgent transport reconstruction”, the reconstruction of about 2,200 km of roads and 58 bridges was realised, and about 190 million EUR were spent. Significant financial support to reconstruction of the road infrastructure was provided by SFOR. Only a small number of objects are still not reconstructed. Significant donations were spent in the reconstruction of the public transport (Sarajevo, Mostar and Banja Luka).

Presently, financing of the road infrastructure falls mostly to road maintenance. About 30 million KM are spent annually in the RS, and about 50 million KM in Bosnia and Herzegovina, for the protection and maintenance of highways and regional roads.



Map 11: Road Network

Railway infrastructure and transport

The railway network in Bosnia and Herzegovina includes 1,041 km of railway lines of which 425 km in the RS and 616 km in the Federation of Bosnia and Herzegovina. About 87 km of these lines are in double track. A number of 776 km of the railway is electrified. There are two main railway directions: the railway Šamac – Sarajevo – Čapljina (Port of Ploče), stretching in the north-south direction, and the railway Bosanski Novi/Novi Grad – Dobož – Tuzla – Zvornik, stretching in the west-east direction. The railway Bosanski Novi/Novi Grad – Bihać – Martin Brod makes part of the railway in the north-south direction, which connects the central and northern Croatia and the north-western Bosnia with the port of Split. The railway Beograd – Bar

passes through the eastern part of the RS in the length of 14 km. The density of the railway network in Bosnia and Herzegovina can be compared with the European countries, but the range of goods and passenger transportation is reduced to 1 km of railway, being significantly under the European average. The existing railway network cannot be used in its full capacity because of the damaged railway lines. Also, numerous railway crossings are not secured, and some stations and rolling stock need to be repaired. There are not enough middle- and long-distance trains. The massive freight (coal and minerals) turnover is still low, in spite of the decreasing trend in the last few years. Still, it ensures a sufficient income to cover relevant expenses. The freight and passenger turnover in 2002 was about 15% of the total turnover realised in 1990. According to the middle-term development strategy of Bosnia and Herzegovina, 5% is allocated annually from the State Annual Budget (SAB) for capital investments, of which most should be used for the further construction of the Corridor Vc. Considering the amount of this investment, the biggest part of these financial recourses will have to be provided from concessions of the domestic and foreign investors.

Today, the railway infrastructure needs significant investments. The railway infrastructure and rolling stock have suffered serious damages estimated up to one billion USD. Reconstruction of the railway infrastructure develops in three phases. During the first phase, the railway network for the low speed transport was reconstructed, with the exception of safety signalisation devices and telecommunication system, which still need repair. Donations in the amount of 70 million USD were spent for this reconstruction. The second phase, which is underway, includes railway reconstruction from the EBRD and EIB loans (repair of the two 45 km long railway sections, safety signalisation of 11 crossings and 3 stations, replacement of telecommunication cable in the length of 170 km, purchase of the equipment for railways maintenance, repair of damages on 5 stations and 3 workshops), and implementation of preparatory activities for reconstruction of the rolling stock (purchase of new cars and repair of the existing ones). The above-mentioned projects were planned to be realised by the end of 2006, and partly after that period. During the third phase, the quality of the railway infrastructure should be brought at the level of international norms and standards.

Air transport and airports

There are four airports in Bosnia and Herzegovina, namely in: Sarajevo, Mostar, Banja Luka and Tuzla. All four airports are licensed for international air transport. The annual passenger traffic at Sarajevo airport is about 300,000 passengers, at Banja Luka airport about 40,000 and at Mostar airport about 15,000 passengers. Works on Tuzla airport apron are approaching the end, and it will be soon open for traffic. In the post-war period, all airports were reconstructed. The total donor investments in airports reconstruction were about 36 million EUR.

Today, air transport and infrastructure play a more important role than in the pre-war period. Four airports licensed for international traffic are now in the phase of obtaining ICAO standards. The same situation is with flight control. Activities in this branch are not finalised and equipment costs are estimated at about 80 million KM. As per CEATS agreement, the equipment and installation costs are estimated at about 14 million EUR, together with the other significant investments needed for the development of all four airports (i.e. extending of passenger and cargo terminal). The security improvement project was expected to be finalised by the end of 2006.

Water transport and infrastructure

The river Sava, in the length of 333 km, forms a border between Bosnia and Herzegovina on the one, and Croatia and Serbia, on the other side. Being a tributary to the Danube, the water

transport on the Sava is connected with the Danube forming the VII Trans-European transportation corridor. In this way, Bosnia and Herzegovina is included in the European water flows network what valorises the geo-traffic position of the country. Water transport in Bosnia and Herzegovina needs the same opportunity for the development as in the EU. In the pre-war period, there were two operative ports on the river Sava, namely: Brčko and Bosanski Šamac/Šamac. There are no maritime ports in Bosnia and Herzegovina; the Croatian ports on the Adriatic Sea are used instead. To make possible the usage of the river Sava and regressing to the pre-war category (category IV), it is necessary to regulate this waterway. In the post-war period, the reconstruction of the port of Brčko installations was done. To recover the river Sava waterways and ports of Bosanski Šamac/Šamac and Brčko, only a small amount of money was invested. The equipment of the port of Brčko was recovered through donations.

Communicational infrastructure

Telecommunications

At the moment, telecommunications system of Bosnia and Herzegovina is underdeveloped when compared to the developed and medium-developed European countries. Phone communication covers about 22% of the territory (i.e. 26% in the Federation of Bosnia and Herzegovina and 19% in the RS), mobile communication over 18%, the Internet communication around 2% and the cable TV covers less than 1%.

In technological sense, the telecommunication system does not lag much behind the European and world communications. About 70% of the telecommunication system is digitalised. Mobile networks are made in digital technology (2G systems). The systematic implementation of 2,5G systems has started, and there are plans for introducing the 3G (the third generation) systems, which will enable the speed of information transmission up to 2 Mbps on radio-section. The transport network framework in Bosnia and Herzegovina includes optical cables as transmission media, thus providing a better quality of information transmission. The access networks have already been made as broad banded in all three elementary technologies: copper (with xDSL), optics and radio.

The process of reforms in the telecommunication section has already started. It is necessary to proceed and intensify the CRA activities with the aim of further regulatory systematisation of the TC area. The Council of ministers needs to upgrade the telecommunication policy and legislation so as to make stronger connections with information technologies, and to prepare the ambient for a better use of information – telecommunication technologies (ITCT) in general. In order to achieve full effects of ITCT, a suitable infrastructure is necessary, including, in the first place, highways. Together with the necessity of enlargement, this is the most important task for the powerful TC operators.

The process of telecommunication liberalisation continues. All voice and non-voice services are liberalised through telecommunication policy, except of the voice service at international level, which was planned for the end of 2005, but requires previous re-balancing of prices. Privatisation has already started; in the Federation of Bosnia and Herzegovina, 10% of Telecom has already been privatised (by certificates), and in the RS, 20% (by vouchers). Privatisation has to be continued respecting stakeholders' interests (i.e. employers, owners of certificates, the state and final users).

Using donations and loans, the dominant operators are financing development with more than 200 million KM a year. Two large economic infrastructure systems, namely, the Bosnia and Herzegovina Electrical Utility and the Bosnia and Herzegovina Railways, have been granted

credits for the construction of transition system for their own needs, and for the needs of the third users. The Bosnia and Herzegovina Electrical Utility has got a loan of 50 million EUR from the EBRD (for the SKADA system and telecommunications), while the Bosnia and Herzegovina Railways have been granted 30 million and 20 million EUR credits from the EIB and EBRD for signalisation and telecommunication equipment.

Postal service

The postal exchange is realised through the postal network composed of postal units and their specialised departments. The postal exchange in Bosnia and Herzegovina is effected through the three public postal operators, namely: the public company "BH Posts of Sarajevo", the Department for postal service "RS AD Banja Luka" and the Croatia post "Mostar".

The public company "Bosnia and Herzegovina Post" covers the total surface of 15,167 km² with around 1,900.000 inhabitants. By the end of 2002, there were 243 post offices in the area of Bosnia and Herzegovina, each serving approximately 7,818 inhabitants at the surface of about 62 km² of the region. In other words, one unit serves on average 3,100 and mail boxes about 1,900 inhabitants.

2.7 Environment Protection and Planning

Owing to its raw-material and energy resources, the Republic of Bosnia and Herzegovina, as a component federal unit of the former Yugoslavia, was of high importance for the economic development of the country. Also, the area of Bosnia and Herzegovina was suitable for the development of the basic and military industry. A significant number of hydro- and thermo-electric power plants, together with huge supplies of coal and steel, enabled the production of: more than a half of the ex-Yugoslavian production of coal, 70% of iron minerals and metals, aluminium, lead, zinc and almost 50% of the electric energy production.

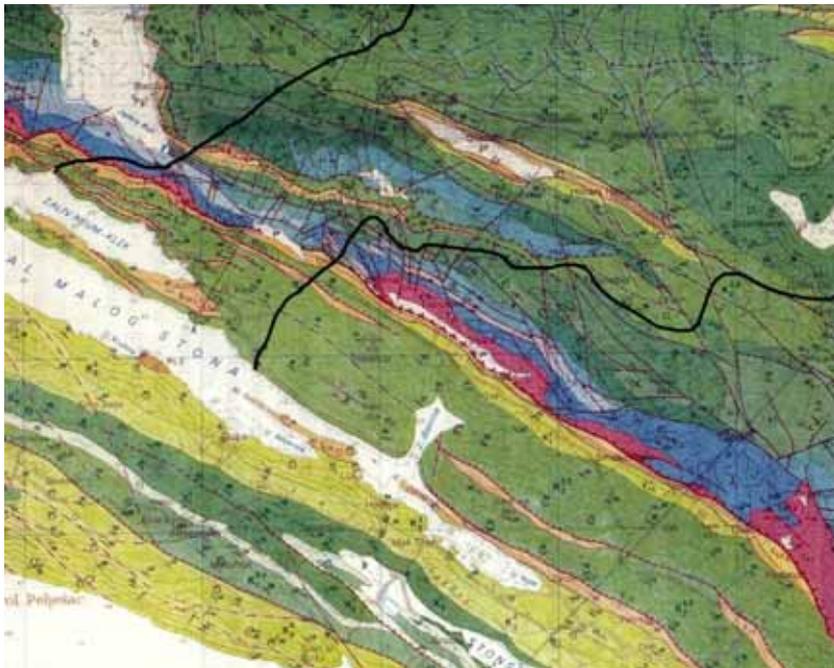
Also, a great part of chemical industry of the ex-Yugoslavia (based on nitrogen and chlorine production) was located in Bosnia and Herzegovina. Intensive exploitation of natural resources by using mostly old and highly polluting technologies and low-market prices of raw materials and energy, dictated by the government, were not able to establish the balance between the economic development, on the one, and environmental protection and sustainable development, on the other hand.

Protection of the environment and nature are two basic legislative concepts of environmental approach. Environment protection understands keeping under control the impact of urbanisation, industrialisation, communication, and agricultural and other human activities on the environment. On the other hand, protection of nature is related to areas of special natural values, where changing of natural contents is forbidden or very limited.

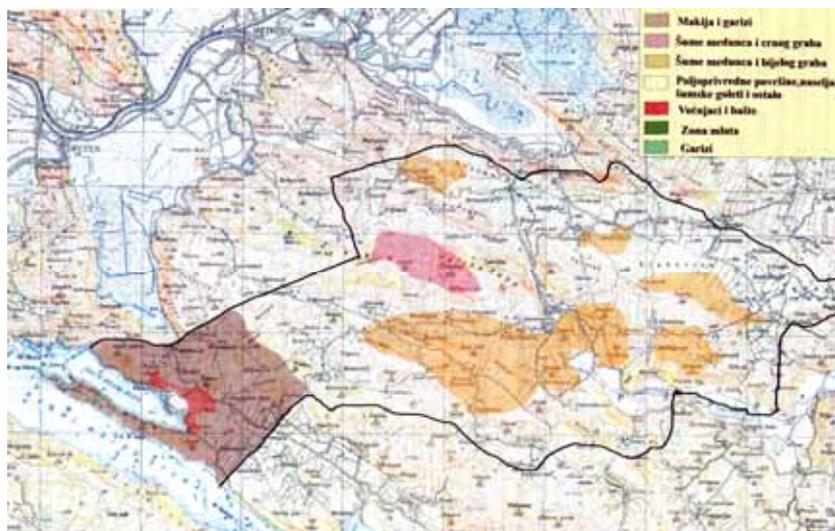
Environment protection is a compromise between the need for economic development and preservation of nature qualities; protection of nature is a compromise between the desire to preserve nature in its original form and inevitable changes the humans have introduced in the normal, slow and self-regulating nature development. Environment protection evolved into a more active concept, i.e. environmental management. According to ISO EN BAS 1400, the term environmental management understands management with respect for environmental component.

2.8 Protection of Nature and Cultural Heritage

Bosnia and Herzegovina is a country with a very rich biodiversity. This is due to the fact that Bosnia and Herzegovina belongs to three different geological and climate regions, namely: the Mediterranean, the Euro-Siberian Boreal and the Alpine high Nordic climatic region (see Maps 12 and 13). More precisely, in the region of Bosnia and Herzegovina there are several developing endemic and relict centres, i.e. refuges of tertian flora and fauna, which in specific paleo-climatic conditions remained preserved till today. From the point of view of biodiversity and geo-diversity, Bosnia and Herzegovina is one of unique and most multifarious regions in Europe. Vascular flora in Bosnia and Herzegovina contains about 5,000 known species, subspecies and forms. Even 30% of the total endemic flora in the Balkans (i.e. 1,800 species) can be found in Bosnia and Herzegovina. At this point, there is no confirmed information about bacteria (the blue-green bacteria or the blue-green algae), but it is estimated at more than 2,000 species.



Map 12: Geology of the Coastal Area



Map 13: Forest Area

Natural heritage presents parts of nature of significant value. This includes: nature reserves, spatially limited natural regions, some herbal and animal species and their habitats, monuments of nature, memorial monuments of nature and protected zones (see Maps 14 and 15). Natural heritage of Bosnia and Herzegovina is classified into three categories, namely:

- Natural heritage of universal (international) significance;
- Natural heritage of special importance for the history and culture of a nation and nationalities; and
- other valuable natural heritage.



Map 14: Natural Values



Map 15: Cultural Heritage

In this context, cultural heritage is treated as part of natural surroundings with special environmental values. Cultural heritage is closely connected with the diversity of human culture and represents its best characteristics resulting from the hundreds-year long anthropogenetic and ethnogenetic process in the area of Bosnia and Herzegovina. The diversity of human culture and cultural heritage of Bosnia and Herzegovina is unique, including monuments of culture and protected zones.

In the RS, in August of 2002, the Law on nature protection was adopted. This Law is aimed to restoration, protection, maintenance and sustainable development of landscapes, natural areas, flora and fauna and their habitats, soil, minerals, fossils and other components of nature being part of the environment. In Bosnia and Herzegovina, the same law is in the process of adoption.

The main task in this field is to protect the zones with significant and/or endangered biodiversity, natural and cultural heritage. The Law on nature protection (“Official Gazette of Bosnia and Herzegovina”, 4/65) defines categories of protection and protected parts of nature (see Table 5).

Table 5: Categories of Nature Protection and Protected Parts of Nature

Group	Category of protection	Number	Sub-group	Number
I	Strict nature reserve	3		
II	Economic nature reserve	2		
III	National park	2		
IV	Special reserves		geologic	2
			botanic	5
			ornithological	1
V	Natural area reserves	9		
VI	Flora species	7		
VII	Fauna species	5	Song birds	53
			Swamp birds	66
			Birds of prey	38
VIII	Monuments of nature		geologic	3
			geomorphologic	65
			Palaeontology	1
			Separate trees	21
			Groups of trees	1

Regulation on nature protection (Public Gazette of HR-HB, 31/94 and 2/95) has served as a basis for the establishment of “Hutovo blato” and “Blidinje” area as national parks. In 2002, the national park of “Hutovo blato” was included in the list of internationally recognised wetlands (the Ramsar Convention, Iran, 1971).

Cultural and historical heritage and its natural surroundings in Bosnia and Herzegovina was considerably devastated and endangered during the recent war. In the war conditions, the concern about cultural diversity was treated as the secondary problem, and its solving was mostly postponed. Generally speaking, the recovery from the war damage done on the protected cultural-historical heritage has not yet been completed due to the lack of financial resources.

2.9 Introduction of Coastal Zone Planning

In spite of numerous documents on and tradition of spatial planning in Bosnia and Herzegovina, the coastal area planning and management has not been implemented in practice. There is not even one strategic governmental document that would explicitly define the attitude toward the coastal area. In several documents, however, the importance of coastal area is mentioned and the guidelines for its arrangement are given. These guidelines, however, do not refer to

sustainable development as it has been defined by the *Agenda 21* (Rio de Janeiro, 1992) and *MED Agenda 21* (Tunis, 1994). Due to this, there is no institutional context for a systematic and permanent management of the coastal area in Bosnia and Herzegovina, as it is the case in other Mediterranean countries.

Management of coastal areas on the Cantonal level is realised through several Cantonal departments (i.e. for spatial management, environmental protection, inspection, etc.). In general, there is no integration among them. Co-operation between the relevant ministries and governmental administrative bodies (dealing with environment protection, spatial management, protection of waters, agriculture, fishery, etc.) is not satisfactory.

2.10 Introduction of Marine Spatial Planning

Although the existing legislation of Bosnia and Herzegovina contains many regulations and rules related to coastal area management, there are no specific standards for the coastal area management in general. The legislation is fragmented, and with the exception of the Law on water protection as a basic set of provisions related to the sea and coastal area, regulations regarding the coastal area management are also included in several other laws and by-laws. Therefore, there is a need for the creation of a special law, which would deal with coastal area management issues. Since the activities on the sea are not adequately regulated, conflicts are very frequent.

Tasks to be carried out are:

- to adopt a waste management strategy;
- to improve the system of energy and other industrial waste disposal;
- to strengthen the institutional frame and capacities for waste management; and
- to develop alternative solutions for waste recycling.

As for water protection, the Federal strategy for water protection has been adopted as part of the Federal strategy for environment protection. In order to implement this Strategy, plans for river basins and sub-basins protection have been adopted. Besides, secondary plans dealing with water protection should be adopted as well.

Secondary plans for water protection deal with particular issues of water protection, drainage, water uses and parts of river sub-basins. These plans have to be adjusted with the Federal strategy and Plan for watershed area protection.

During the preparation of physical planning documents, the proposers have to consider restrictions and conditions provided by water protection plans, as an obligatory starting point.

2.11 Evaluation Level, Advantages and Shortcomings

At the moment, there is no ministry or agency competent for the environment at the state level. Relevant issues are solved by the Ministry of transport (the river Sava), or the Ministry of foreign affairs. Within the Ministry of foreign trade and economy, there are three departments dealing with “natural resources”, “energy” and “environment” issues, but their role, competence and mandate have not been defined. The other problem is the lack of staff. There is also a co-ordinating body at the governmental level (UKOOR), which invites different stakeholders several times a year to jointly discuss relevant issues.

In the Federation of Bosnia and Herzegovina and in the Republic of Srpska, the Ministry of agriculture, water management and forestry is responsible for the implementation of water strategy and policy, making agreements and issuing licenses, setting up the standards and guidelines and implementation of laws and regulations through licence issuing and supervision.

3. Characteristics of Spatial Planning in Coastal Areas

3.1 Main Problems Related to Coastal Zone Use, Conflicts

The post-war period in Bosnia and Herzegovina is characterised by conflicts arising from different land-users' interests. The reasons for such conflicts are manifold, including, among others:

- putting of individual before public interests;
- showing more favour to short-term than to the long-term interest values; and
- favouring economic values of land-use in relation to ecological ones.

Occupation of agricultural and forest land for construction on the public property, and illegal construction on the private land, has gained such extension that realisation of fundamental regulations becomes questionable. Such situation influences economic development of certain municipalities and development in general. As a consequence, locations for individual construction are not defined, rents assigned for the arrangement of construction land are appropriated and, finally, significant social differences and tensions are created.

A number of problems have been created in the coastal area as a consequence of a permanent and strong pressure of competitive demands for land on the coast, provoked by the attractiveness of such locations. As these pressures occur in a relatively small area, they often generate conflicts.

The Bosnian part of the Adriatic is still one of the best-preserved regions in the European part of the Mediterranean. But, wastewaters flowing from the hinterland into the sea are the biggest polluters (see Map 16).



Map 16: Sources of Pollution in the Wider Coastal Area

In the whole coastal area, there is no suitable landfill for controlled disposal of solid waste or its processing. Because of that, alternative solutions should be considered, such as preparation of projects aimed at the improvement of present conditions of waste disposal and processing in the cement industry.

Illegal construction, often followed by the lack of qualitative spatial plans, which, among others, do not include environment as an integral development component, poses a big threat to coastal area. That problem is particularly expressed in urban coastal areas, and will probably be more pronounced by further tourism development.

It is feared that this negative process will continue in the future, because of inadequate legislation for the coastal area and insubordination of relevant institutions in charge of coastal area management at Cantonal and governmental level. In spite of great efforts made in the field of planning, the basic economic and environmental policy measures are not harmonised.

The other problem is an inadequate information system of planning and management of land and the sea. Most information available is about the coastal/sea area, which is researched by scientific institutions. On the other hand, information about situation on land, plans realisation, sustainable development indicators, use of management instruments, awareness of coastal problems, etc., is insufficient.

The most pronounced issues related to the sea and coastal area are as follows:

- sea pollution from land-based sources (point and diffuse sources, rivers, “hot points”);
- sea pollution from the coast;
- sea pollution from vessels;
- unsuitable wastewater treatment;
- unsuitable solid waste disposal system;
- lack of supervision of waste disposal into rivers and the sea;
- lack of permanent monitoring of sea quality;
- fires;
- governmental strategy for the Adriatic Sea still not defined;
- insufficiently implemented integrated coastal area management (inadequate locations, inappropriate construction in the narrow coastal area, disappearance of the seaboard, inability to solve land- and sea-use conflicts);
- ignorance of the basic parameters related to the maritime area (bathymetry, waves, sea streams, seism of sea level as indicators of the global climate change, geologic structure of the sea-bed and submarine world, and other oceanographic and geophysical parameters);
- lack of complete maritime cadastre evidencing objects on the sea and sea-bed, and in the submarine world, and the lack of information indispensable for safe sailing and environmental protection;
- weak functioning and the lack of economic and other instruments needed for plan realisation;
- weak functioning of the civil society, followed by the lack of awareness of the coastal area issues;
- lack, at the municipality and Cantonal level, of the political will for sustainable development of coastal areas; and
- lack of a system for information collection and monitoring of sustainable development of coastal areas.

Priorities in solving fundamental problems are as follows:

- to stop sea pollution from land-based sources, vessels and from the coast;
- to raise awareness of coastal area issues and establish the coastal area management system;
- to adopt governmental strategy for the coastal area together with adequate implementation measures;
- to improve integrated management of the coast and adopt the adequate coastal area legislation; and
- to develop an efficient system of fire prevention and extinction.

3.2 Planning in Coastal Zones

Tourism and urbanisation in the coastal area

Tourist development in coastal areas generates a number of changes increasing the pressure on the coast. Construction of new tourist facilities creates the need for construction of new or extension of existing areas intended for swimming, having as a consequence modifications of the coastboard. Urbanisation, illegal construction, uncontrolled tourist development and extension of areas intended for swimming are the main causes of coastal devastation, landscape disturbance and changes of its natural features. Besides, these changes endanger habitats, biodiversity and natural balance in general.

Improvement of sustainable agricultural and rural development

More and more of good-quality agricultural land is lost because of urban development. In these areas, the number of traditional activities has decreased, and development level of public services is very low. On the other hand, these areas benefited from the increasing development of tourism, residential economy and production of the local agricultural and food products. The landscape is often in danger of being ruined or even lost forever.

Agriculture still plays an important social and economic role, although productivity level is generally on a very low level. Insufficient attention is paid to effective and sustainable economy, including water resources and soil exploitation. Although the rural population is, in spite of migrations, still numerous, it is mainly poor with low educational level.

Planning of transport

The “Study on road network in the HN Canton” (“Public newspaper for the HN Canton”, 9/06) represents a good start for further steps to be taken in the field of planning, construction, reconstruction and maintenance of the road network. Particular attention is given to legal obligation to prepare a Strategy for public roads development.

As for the local roads, their total length in the region of Neum is about 82 km, of which 70 km are covered with asphalt, and about 12 km are macadam roads. In the town of Neum, all roads have been constructed, and most of them are asphalted. The planned construction of a superhighway in the corridor Vc and the Adriatic-Ionic superhighway (AISH) opens great chances for a faster development of this part of the coastal area.

3.3 Estimation Level, Advantages and Shortcomings

The above-mentioned issues the coastal area of Bosnia and Herzegovina is facing are similar to those in other parts of the governmental territory. But, because of the permanent and strong

pressure on attractive locations in the coastal area, these issues are given special attention. Since the pressures occur in a rather small area, the conflicts are often more expressed here than in other parts of the territory.

Co-operation of Bosnia and Herzegovina with the neighbouring countries in the field of integrated coastal area planning and management (i.e. positive experiences and lessons learned) will contribute to the more efficient solution of present problems. In conclusion, the main priorities are to establish the coastal area planning in accordance with valid laws, and to establish a system of integrated planning and management, which would be in accordance with international practice and conventions related to the Mediterranean.

4. Integrated Coastal Zone Management (ICZM)

At the moment, there is no integrated coastal zone management (ICZM) in Bosnia and Herzegovina. So, the project entitled “Establishment of a system for monitoring the sea quality in the coastal zone of Bosnia and Herzegovina – Introduction of ICZM process in the coastal zone of Bosnia and Herzegovina” will follow the principles and guidelines of integrated coastal zone management (ICZM). This will be the first step in the establishment of ICZM practice in Bosnia and Herzegovina.

Bosnia and Herzegovina and the Mediterranean Action Plan (MAP)

Bosnia and Herzegovina became a member of the Mediterranean Action Plan (MAP) at the 8th meeting of the Contracting Parties to the Barcelona Convention, held in Antalya, Turkey, in 1993. In this way, Bosnia and Herzegovina has taken over the obligations from the already signed Barcelona Convention and its four Protocols from the ex-Yugoslavia (“Official Gazette for Bosnia and Herzegovina”, 26/98), namely:

- The Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft (Dumping Protocol);
- The Protocol concerning Co-operation in Combating Pollution of the Mediterranean Sea by Oil and other Harmful Substances in cases of Emergency (Emergency Protocol);
- The Protocol for the protection of the Mediterranean Sea against Pollution from Land-based Sources (LBS Protocol); and
- The Protocol concerning Mediterranean Specially Protected Areas (SPA Protocol).

Presently, the adoption of amendments to the Barcelona Convention, the LBS Protocol and the new SPA Protocol are underway in Bosnia and Herzegovina. However, Bosnia and Herzegovina has not ratified the Barcelona Convention so far, nor the revised Protocols (The LBS and SPA Protocol). The Ministry of Foreign Affairs of Bosnia and Herzegovina and the Ministry of the Interior of the Federation of Bosnia and Herzegovina support the idea of active participation of Bosnia and Herzegovina in the MAP. In June 1997, the MAP National Co-ordinator for Bosnia and Herzegovina was nominated, and the MAP office was established. Being a member country of MAP, Bosnia and Herzegovina is fully responsible for the management and improvement of environmental and sustainable development of the Bosnian and Herzegovinian part of the Mediterranean through the implementation of the Barcelona Convention and its Protocols.

Integrated management and development of coastal zones

In order to achieve a successful management and development of its coastal zone, Bosnia and Herzegovina has to fulfil the following tasks:

- to adopt the Mediterranean ICZM Protocol, and to prepare the relevant Strategy for sustainable development;
- to concern environmental fragility of the coastal zone. To that end, linear and permanent urbanisation of coastal zones will be prevented through avoiding construction of new roads running parallel with or along the coast; traditional production activities in the coastal zone will be strengthened; agricultural and forest green zones will be maintained; and ecologic corridors will be established;
- to make the preparation of EIA and SEA studies obligatory for the implementation of plans and programmes, which may have a negative impact on the sea and coastal areas, as well

as to prepare relevant instruments for the integration of environmental concerns into policies, programmes and projects;

- to adopt, by 2012, laws, instruments and mechanisms relative to integrated management of coastal zone;
- to improve integrated management of coastal zones and watershed areas through active participation of local authorities, companies and non-governmental organisations, with the aim of making a limited number of actions more efficient and co-ordinated, and through mobilisation of donors;
- to estimate vulnerability of coastal zones in relation to natural and technological risks, to forbid construction in the high-risk zones and to integrate risk prevention in urban development plans. To adopt, by 2010, intervention plans for all vulnerable coastal areas, including organisation of preventive training courses;
- to prepare and implement specific plans for sustainable management and development of islands; and
- to use, in the best way, the Regional Euro-Mediterranean Programme for the Environment (SMAP) with the aim of promoting integrated management of coastal zones.

Introduction of ICZM process in Bosnia and Herzegovina

At the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro, in 1992, the *Agenda 21* was adopted. Agenda 21 is a global agenda for transition to sustainability in the 21st century. Chapter 17 of the Agenda relates to protecting and managing the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources. According to Chapter 17 of the Agenda, the coastal countries are recommended to include integrated management of coastal zones into their national jurisdictions, and to take measures for establishing or, where necessary, strengthening the adequate co-ordination mechanism (institutions) for integrated management and sustainable development of coastal areas and resources at local and national levels.

As to implementation of the above-mentioned recommendations in the HN Canton, particular adjustments and modifications would be required. To introduce integrated coastal zone management in the HN Canton, it would be necessary to ensure the adequate political, administrative, legislative and financial framework at the highest level of the HN Canton.

More precisely, the Government of the HN Canton will have to ensure:

- institutional framework for decisions making;
- legal framework for the adaptation of regulations, directives, standards and procedures; and
- financial framework for allocation of financial sources, supports and subventions.

As for now, there is no Law on marine spatial planning in Bosnia and Herzegovina.

5. Marine Spatial Planning

5.1 Status and Development of Sea Use in the Country

Bosnia and Herzegovina's part of the Adriatic coast is about 25 km long, and includes Klek peninsula, Neum-Klek bay with a natural port and the town of Neum, and the aquatorium of Mali Ston channel. The Municipality of Neum is situated in the Adriatic coastal area, which makes part of the HN Canton of the Federation of Bosnia and Herzegovina. The bordering municipalities are Čapljina, Stolac and Ravno in the Federation of Bosnia and Herzegovina, Ljubinje in the RS, and Dubrovnik and Metković in the Republic of Croatia.

Tourism, maritime industry, agriculture, fishery and the raw material utilisation, are the main economic activities in the region. In the past period, the use of natural non-renewable sources was not sustainable. The coastal area, as a unique and specific value, has almost been „spent” by the different economic and other human activities, which reflected in changes of the landscape. The sea and coastal area environment was exposed to particularly high pressure due to the unsolved wastewater treatment issues, harbour activities and other industrial and agricultural activities, as well as due to the activities on the sea, such as fishery and mariculture.

Fish production is limited with the size of the sea surface of Neum bay. At the moment, only two firms are engaged in fish breeding, producing annually 80 tons of gilthead and sea bass, 10 tons of dentex and 20 tons of shellfish. Oyster production has only started. The production is limited because of the juvenile fish import from Italy and France.

In the future, the priority should be supplying of the domestic market. Bigger capacity and better technology would, however, ensure export of sea products to international markets. Therefore, it would be good to establish joint-ventures with fishermen from Italy and France who could contribute their experience, capital and market.

5.2 Major Problems and Issues Related to the Use of Coastal Area, Conflicts

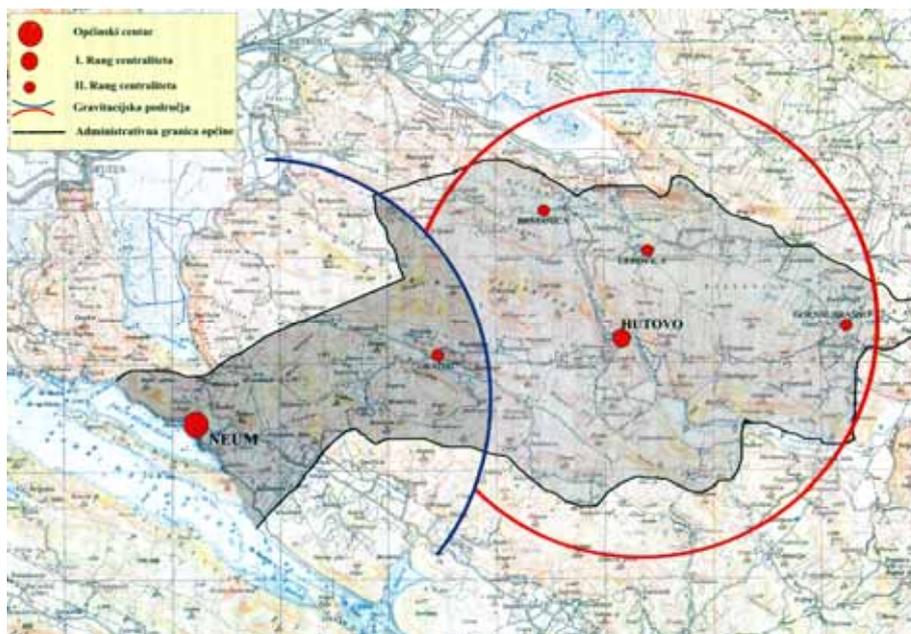
Due to the lack of data, it was not possible to provide an overview of problems and issues arising in the coastal area.

5.3 Condition and Main Characteristics of Coastal Area Planning

From the beginning of preparation of spatial-planning documents until today, lots of changes happened in the political, administrative and territorial system of the HN Canton (i.e. a strong migration caused by the war, introduction of private property, introduction of new supply and demand principle, establishment of market economy and orientation of the domestic to the world market). Following these changes, the priority is to manage the space in a co-ordinated manner and adjust it to land-use conditions.

Some of the basic spatial planning documents are:

- Spatial plan of Neum Municipality, adopted by the end of 1979, and updated in 1987 for the planning period from 1985-2003 (see Map 17);
- Urban plan; and
- Regulatory settlement plans for: Centar I and II, Surdup I and II, Jazine-Kamenice, Tanko Sedlo-Opuće, Ograde and Bregovi.



Map 17: Spatial Development Model of Neum Municipality

As a direct consequence of urbanisation, population and economic activities are concentrated in the small coastal area. In order to reduce this pressure on the coast, some activities should be directed to the hinterland.

The main economic activity at Neum is tourism. This activity should ensure better arrangement of the town and its coastal area (i.e. wider beaches, waterfront, walking paths, reconstruction of devastated buildings, protection of the bay, etc.).

5.4 Legal Basis

The “Law on physical planning of the HN Canton” regulates spatial planning in the entire area of the HN Canton territory, including organisation of the spatial administration (municipalities and town), preparation and implementation of spatial planning documents, decision-making, surveillance and sanctions.

Modification and redesigning of spatial plans in Bosnia and Herzegovina is connected with certain difficulties, namely: the sudden social, economic and political changes; the need for solving spatial problems on the one hand, and limited financial resources, on the other; inadequate informing of the public and stakeholders about contents and complexity of spatial plans and the necessity of their preparation. The current Law on management of the seashore of Bosnia and Herzegovina dates from the former Socialist Republic of Bosnia and Herzegovina and ex-Yugoslavia and regulates:

- maximum allowed concentrations of dangerous substances in the water and at the seashore (“Official Gazette”, 8/78);
- water regime of interest for two or more republics and trans-national waters (“Official Gazette SFRJ”, 2/74, 24/76);
- seashore and the central zone (“Official Gazette SFRJ”, 49/87);
- classification of waters in the republics, trans-national waters and waters of the coastal sea of Yugoslavia (“Official Gazette SFRJ”, 6/78);
- classification of waterflows (“Official Gazette SR of Bosnia and Herzegovina”, 42/67);

- classification of waters and coastal waters of Yugoslavia bordering the SR of Bosnia and Herzegovina (“Official Gazette SR Bosnia and Herzegovina”, 19/80); and
- dangerous materials, which can not be thrown into the water (“Official Gazette SFRJ”, 3/66, 7/66).

According to the above Law, seawater is classified as follows:

- 1st-class quality water where breeding of sea shellfish is allowed;
- 2nd-class quality water that can be used for swimming, recreation and water sports;
- 3rd-class quality water where fishing is allowed; and
- 4th-class quality water of indoor harbours.

Following this regulation, there are no 3rd and 4th-class quality seashore waters in the area of Mali Ston and Neum bay.

The quality of seashore waters must fulfil conditions as presented in the following table:

Table 6: Seawater Quality Classification

No.	Index	I Class	II Class	III Class	IV Class
1.	Suspended matter mg/l do	10	20	60	-
2.	Max number of coliform per litre of water	100	5.000	200.000	-
3.	Oxygen saturation percentage more than	70	60	40	20
4.	pR merit $\pm 8,1$	0.2	0.3	0.3	0.4
5.	Level of biological productivity	oligothrophic	oligothrophic	oligothrophic	oligothrophic
6.	Increase of natural temperature 0°C	0°C	2°C	3°C	12°C
7.	Visible waste material	none	none	none	none
8.	Oil, petroleum and its derivatives (on the surface) mg/l	0.05	1	10	100
9.	Radio –activity level Bg/l	All radio-nucleus can be max Alfa=0,1; a beta =1.0			
10.	Waste material on surface mill equivalent T-X-100/l	0.05	1	10	100
11.	Toxic matter, change of temperature and other negatives signs	Should be in the frame of regular class			

The “Law on internal and nautical navigation” (“Gazette of the Federation of Bosnia and Herzegovina” No. 73/05 /28.12.2005) regulates: navigation and safety of all types of vessels; the basic material-legal regulation of vessels; shipment (shipment jobs, accidents); captaincy and control of navigation in the national waters of the Adriatic Sea belonging to the Federation of Bosnia and Herzegovina; working conditions on waterways; maintenance and marking of waterways (sailing safety); building structures on the coast and in the coastal area; and building bridges over waterways, if possible.

The Government of the Federation of Bosnia and Herzegovina regulates border waterways and classifies sea worthiness on the suggestion of the Federal Ministry of Traffic and Communications. Safety of sailing on inner waterways and the sea is the competence of the captaincy, and is subject to prior consultations with the Federal Ministry of Agriculture, Water Management and Forestry. The competent Ministry and other relevant bodies in the Federation of Bosnia and Herzegovina and the Canton prepare plans for the defence of the coastal zone and inner sea against sudden pollution from ships, and for timely organisation of relevant actions.

5.5. Elements and Contents of Coastal Area Planning

In the first phase of coastal area planning, it will be necessary to analyse the existing data on spatial planning, assess the current situation and, finally, to prepare long-term plans to be implemented according to the expected development of the HN Canton. At the moment, new data should be compiled in order to define the spatial planning strategy, which will be aimed at ensuring adequate protection of the space and resources, opening possibilities of different perceptions of the space and at resolving the relevant problems (see Map 18).

5.6 Procedure and Responsibilities for the Preparation of Coastal Plans

Collection of spatial data, their analysis, valuation and subsequent revision will be done by the Ministry of Civil Engineering and Physical Planning of the HN Canton jointly with other relevant institutions in the HN Canton, Federation of Bosnia and Herzegovina, the RS, Bosnia and Herzegovina and the Republic of Croatia.

5.7 Co-ordination and Conflict Resolution

The use of the sea, as the most important and renewable natural resource of the HN Canton, needs a careful and systematic planning and protection. The sea has a strategic meaning for sustainable development of the economy of Bosnia and Herzegovina. Being an important ecosystem, it provides better quality of living. Management of the coastal area should be based on spatial plans. These plans should define sea corridors and zones used for navigation traffic, harbour services, nautical tourism, fishing, mariculture (aquaculture), fish processing, salt production, recreational and sports activities, etc.

In the field of protection of the sea and coastal area from pollution, international co-operation is very important. Special care needs to be dedicated to prevention of sea pollution from the neighbouring countries. Therefore, it is necessary to carry out, jointly with other countries, permanent control of the sea quality and to enhance sea protection measures. Implementation of these measures should be ensured through bilateral and multilateral contracts and activities.



Map 18: Preferred Spatial Development Model of Coastal Area of B&H

Priorities and phasing of activities related to sea protection should be in accordance with the general objectives of sustainable development. By defining the unique strategy for the protection of the sea and upgrading the relevant legislation, it is necessary to ensure preconditions for the preparation of sea protection plans. The priority is the protection of some endangered parts of the sea from land-based pollution, and particularly several critical points in the Bay of Mali Ston. The protection needs to presume regulation and control of vessels movement. According to the existing directives, the priority is to eliminate dangerous pollution and establish a unique monitoring system of the sea quality. The main objective of the plan is to assess the natural and created situation, and to define a development strategy for the rational use and protection of the sea.

5.8 Implementation of Coastal and Sea-Use Plans

Besides for tourism, the sea area of the municipality of Neum is also used as a breeding area for sea organisms. Mariculture is practised in the pools of “Andorra-Commerce” and “Karaka”. In order to make this economic activity more efficient, it is necessary to fulfil some assumptions of which the most important are: construction of industrial breeding nursery; defining location for growing of juvenile fish to commercial size; ensuring nutriments for fish feeding; ensuring relevant experts; and, finally, establishment of marine protected areas.

Prior to the above mentioned, the spatial planning of the relevant area and impact assessment of the above structures on the sea is needed. The range of production will be determined by the size of production capacities, which will be limited due to the vicinity of the sea and low sea level.

6. Linkages to International Policy

The earliest example of international co-operation is the Danube navigation, dating from the 19th century. In the south of the Balkans, the need for water for households, agricultural purposes and tourism, was always pronounced. A compromise between the neighbouring countries, which was based on the acceptable balance of these needs, was in some cases accompanied by regulation of the river flow or maintenance of the natural river flow.

A co-operation at the trans-national level has been developed for the protection of the Danube watershed and the Black Sea. A number of conventions were signed and commissions formed to prepare relevant studies and plans so as to facilitate co-ordination between the countries. It is necessary for Bosnia and Herzegovina to sign agreements to be completely involved in these processes until the relevant legislation comes into force.

Due to its constitutional status, Bosnia and Herzegovina has by now not participated in or benefited from international conventions and programmes. Relevant instruments have to be created to enable a full participation of Bosnia and Herzegovina until juridical questions are solved.



7. Recommendations

The area of Bosnia and Herzegovina is characterised by the diversity of natural and anthropogenic landscape. The exceptional values and regional diversity of the country provides for big development possibilities. Because of the fragility of the landscape, the activities there must be planned very carefully, particularly construction of structures of importance for the state, such as highway infrastructure, economic activities, tourist facilities, golf courses, etc. Solutions should be chosen, which would not endanger the landscape and its aesthetic values. To that end, it is necessary to raise awareness of spatial limitations and diversity of the space.

Presently, it is difficult to make spatial plans due to several reasons, namely: insufficient number of experts, in particular planners; a weak interest in urban-planning jobs; unwillingness of local authorities (with some exceptions) to order planning documentation; the lack of the basic planning data (maps and spatial and economic strategy); complicated methods for the preparation of spatial-planning documentation; etc. The former spatial planning and management practice was characterised by insufficient consideration for bigger spatial units and by the lack of communication and co-ordination between the neighbouring local government units.

Due to its formal-legal and pragmatical approach and the lack of creativity, the existing spatial planning methodology has not yielded results by now. In practice, the spatial planning is only aimed to defining location for construction not taking into account public interests. Therefore, it is recommended to determine construction area by spatial and urban plans.

In the field of **spatial planning legislation**, it is particularly recommended:

- to extend the existing laws on spatial planning and construction; and
- to adopt the law on land dispossession and the law on changing the original purpose of land.

In the field of **spatial management of areas owned by the State and local and self-government units**, it is recommended:

- to establish a spatial planning system for state-owned land and real estate; and
- to ensure annual assets in the state budget which would be used for the purchase of land and real estates of importance for the protection of the state area.

In the field of **adjusting the existing legislation**, it is recommended:

- to adjust the existing legislation and work of relevant ministries, state departments and agencies to spatial planning; and
- to introduce stricter regulations for controlling construction and other space interventions.

Further, **it is recommended to establish a State institution for spatial planning and urbanism**, as a strategic-planning institution that would adjust interests of all ministry departments to those of space users.

In the role of a co-ordinating body, this state institution would: prepare a methodology, general rules and standards for spatial planning systems (i.e. cities, tourism facilities, traffic infrastructure, etc.); create a data base containing information about space; monitor spatial activities; adjust spatial interventions to space characteristics; and insure continuity of actions in the space.

Preparation of spatial planning documentation will:

- eliminate the possibility of deliberate and frequent modifications of spatial planning of cities and municipalities;
- prevent spatial/urban plans from being ineffective before the new plan is made;

- adapt spatial planning regulations to conditions at the state, regional and Canton level, with respect for the local features. Building conditions should be equal for all and in accordance with the general rules and standards;
- make new or adapt the existing rules and standards for the preparation of spatial-planning documentation (spatial, urban and detailed plans);
- speed up the GIS introduction in spatial planning and preparation of spatial-planning documentation;
- establish co-ordination and active involvement of Departments for agriculture, forestry and water management, Ministry of culture and Departments for spatial-planning documentation; and
- facilitate and simplify the procedure of giving the “green light” for the preparation of spatial plans and administrative procedures for issuing of urban and building licences, respecting the principle of appreciation of values and not the formal-legal and procedural criteria.

Co-ordination of spatial plans for bigger spatial units means preparation of co-ordination plans or some other kind of co-ordination for several local and self-government units.

Control of spatial-planning documentation quality is very important and includes:

- revision of spatial-urban plans and architectural plans (by forming the state or Cantonal committee); and
- introduction of penalties intended to improve the below-standard urban and architectural documentation.

Supervision of legislation application and control of its quality with the aim of achieving a level needed for its efficient application in practice, including:

- establishment of “city urban institutions” and an expert committee for “city urbanism”, which will be responsible for spatial and urban development of cities and villages;
- improvement of responsibility of architects and engineers for building;
- strengthening the role of inspection in the preparation, adoption and implementation of urban plans; and
- capacity building at cantonal institutes for spatial planning, and improvement of technical and programme equipment.

Improvement of urban inspection includes as follows:

- establishment of a system for the early prevention of illegal construction;
- enforcement of criminal law provisions to efficiently regulate building and space arrangement;
- ensuring better working conditions for inspectors;
- carrying out systematic monitoring of the space; and
- further implementation of surveillance and administrative control of issuing building licences.

In order to **ensure a more efficient spatial planning**, it is necessary to:

- improve capacity building in the field of urbanism and spatial planning;
- improve scientific researches in the field of spatial planning;
- establish criteria and general rules and standards of physical planning; and
- determine building rules and standards in the field of urbanism and architecture.