



Montenegro
Ministry of Tourism and Environment



Coastal Area Management Programme Montenegro
Feasibility Study



Podgorica, May 2008

Acknowledgements

Feasibility Study for Coastal Area Management Programme (CAMP) Montenegro has been prepared in the period December 2007 – May 2008, for the Ministry of Tourism and Environment of Montenegro and the Priority Actions Programme/ Regional Activity Centre (PAP/ RAC) of the UNEP Mediterranean Action Plan (MAP).

The Study was elaborated through the following main steps:

- review of existing laws, policies, plans and strategies;
- analysis of institutional arrangements for coastal area management;
- stocktaking of the ongoing initiatives and projects aiming to contribute to the sustainable development of the Montenegrin coast;
- soliciting opinions of a wide range of stakeholders¹;
- identification of needs and gaps for integrated coastal zone management in Montenegro;
- proposal of the CAMP area and CAMP activities, with a view to long-term sustainability of the project.

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Cover page photos

1. Lucice beach – website of the Public Enterprise *Morsko dobro* (upper row, left)
2. *Pancratium maritimum* on Velika plaza (Long Beach), Ulcinj – Vasilije Buskovic (upper row, right)
3. A view on Mamula from Cape Arza, – Antonela Rajcevic (lower row, left)
4. A view from the Bay of Boka – photo from Pavle Djuraskovic's presentation for the 2nd Round Table on the Protection and Sustainable Development of Montenegrin Coast, Kotor, February 2008 (lower row, right)

¹ List of persons met/ interviewed is included in Annex 4.

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Acronyms and abbreviations

AII – Adriatic-Ionian Initiative
ASCIs – Areas of Special Conservation Interest at the European level
BAT – Best available technology
BP/ RAC – Blue Plan/ Regional Activity Centre
CAMP - Coastal Area Management Programme
CCA – Carrying Capacity Assessment
CER – Centre for Eco-toxicological Research
CFP – Common Fisheries Policy
CP/ RAC – Cleaner Production/ Regional Activity Centre
DEG - German Investment and Development Agency (Deutsche Investitions und
Entwicklungsgesellschaft GmbH)
DUP – Detailed Urban Plan
EBRD – European Bank for Reconstruction and Development
EEA – European Environment Agency
EIA – Environmental Impact Assessment
EIB – European Investment Bank
EPA – Environmental Protection Agency
EPR – Environmental Performance Review
EU – European Union
FDI – Foreign Direct Investments
GDP – Gross Domestic Product
GDP – Gross Domestic Product
GEF – Global Environment Facility
GIS – Geographic Information System
GTZ – German Agency for Technical Cooperation (Deutsche Gesellschaft für Technische
Zusammenarbeit GmbH)
GUP – General Urban Plan
HMI – Hydro-meteorological Institute
ICAM – Integrated Coastal Area Management
ICZM – Integrated Coastal Zone Management
IFI – International Financial Institution
IMO – International Maritime Organisation
INFO/ RAC – Information and Communication/ Regional Activity Centre
IPA – Instrument for Pre-accession Assistance
IPPC – Integrated Pollution Prevention and Control
IRD – International Relief and Development
KfW – German Development Bank (Kreditanstalt für Wiederaufbau)
LBS – Land Based Sources (of pollution)
LEAP – Local Environmental Action Plan
LME – Large Marine Ecosystems
MAFWR – Ministry of Agriculture, Forestry and Water Resources
MAP - Mediterranean Action Plan
MARPOL – International Convention for the Prevention of Pollution from Ships
MBI – Marine Biology Institute
MCSD – Mediterranean Commission on Sustainable Development
MED – Ministry of Economic Development
MED POL – Programme for the Assessment and Control of Pollution in the Mediterranean
Region

MESTAP – Montenegro Environmentally Sensitive Tourism Areas Project
MIO-ECSDE – Mediterranean Information Office for Environment, Culture and Sustainable Development
MoU – Memorandum of Understanding
MPA – Marine Protected Area
MSP – Municipal Spatial Plan
MSSD – Mediterranean Strategy for Sustainable Development
MSTDP – Montenegro Sustainable Development Project
MTE – Ministry of Tourism and Environment
MTMAT – Ministry of Transport, Maritime Affairs and Telecommunications
NAP – National Action Plan for Reduction of Pollution from Land Based Sources
NGO – Non-governmental organisation
NPI – Nature Protection Institute
NS ICAM - National Strategy on Integrated Coastal Area Management
NSP – National Spatial Plan
NSSD – National Strategy for Sustainable Development
PA – Protected Area
PAP/ RAC - Priority Actions Programme/ Regional Activity Centre
PCBs – Polychlorobiphenyles
PE – Public Enterprise
PEW (PEW-MC) – Public Enterprise Regional Water Supply for Montenegrin Coast and Cetinje Municipality
PMD – Public Maritime Domain
PSSA – Particularly Sensitive Sea Area
RAC – Regional Activity Centre
REMPEC – Regional Marine Pollution Emergency Response Centre
RM – Republic of Montenegro
SAP BIO – Strategic Action Plan for Biodiversity in the Mediterranean Region
SAP MED – Strategic Action Programme to Address Pollution from Land-Based Activities in the Mediterranean Region
SD – Sustainable development
SEA – Strategic Environmental Assessment
SP – Spatial Plan
SPA – Specially Protected Areas
SPA/ RAC – Regional Activity Centre for Specially Protected Areas
SWOT – Strengths, weakness, opportunities and threats
UN – United Nations
UNCED – United Nations Conference on Environment and Development
UNDP – United Nations Development Programme
UNECE – United Nations Economic Commission for Europe
UNEP – United Nations Environment Programme
UNESCO – United Nations Educational, Scientific and Cultural Organization
UNFCCC – United Nations Framework Convention on Climate Change
USAID – United States Agency for International Development
UWWT – Urban Waste Water Treatment
WB – World Bank
WWF – World Wildlife Fund
WWTP – Wastewater Treatment Plant

Executive summary

Feasibility Study and CAMP Montenegro

Feasibility Study for Coastal Area Management Programme (CAMP) Montenegro was designed and undertaken in a way to fulfil the following tasks:

- analyse the existing strategic, policy and institutional context relevant for the area where the CAMP activities could be carried out;
- define the area for CAMP;
- collect and present the available relevant information on the strategic, policy and institutional context at the national level and at the level of the study area;
- define the possible activities from the point of view of the national and local interests;
- assess the international context where CAMP Montenegro could be implemented;
- assess the possibilities for the implementation of the CAMP; and
- assess the possibilities for a long-term sustainability of the project.

In order to fulfil these tasks, several activities were carried out in the period January – May 2008, including data collection, field visits and discussions with relevant stakeholders from different sectors (both on national and local levels), situation analysis and presentation of findings/ preparation of the Study. Comments and suggestions to the draft Study were provided by the Ministry of Tourism and Environment (MTE) of Montenegro and Priority Actions Programme/ Regional Activity Centre (PAP/ RAC), and have been integrated in this final version.

CAMP is the Mediterranean Action Plan (MAP) initiative aiming to introduce Integrated Coastal Area Management at local and national level, and to support institutional strengthening and capacity building. It is a collaborative effort between MAP and its Regional Activity Centres (notably the PAP), national and local authorities and international funding institutions. CAMP is based on the principles of sustainable development and integrated planning and management of the Mediterranean coastal areas.

The role of CAMP is to assist to individual Mediterranean countries in:

- applying tools for and procedures of Integrated Coastal and Marine Areas Management within standard planning and management procedures and when implementing practical environment/ development related programmes and remedial actions;
- upgrading national and local capacities for a sustainable coastal management;
- solving real development and environment related problems in selected coastal areas;
- providing inputs to national development planning and implementation process; and
- creating preconditions for the formulation and implementation of rehabilitation/ development and/ or remedial plans and programmes.

Significance of CAMP Montenegro is apparent in light of the need to provide adequate responses to mitigate and manage the pressures on natural resources and environment of the coastal zone, which (the responses) have not been developing at the same pace as economic pressures.

Montenegro has adopted National Strategy for Sustainable Development in 2007, National Strategy for Integrated Coastal Area Management (NS ICAM) is in the final stages of adoption, and in January 2008, the country signed Barcelona Convention Protocol on Integrated Coastal Zone Management (ICZM) in the Mediterranean. It is assessed that CAMP Montenegro is well placed and timed to provide an impetus and contribute to implementation of NS ICAM and ICZM Protocol. Successful application of the concept of integrated (ecosystem based) approach to management of natural resources is of crucial importance as the country aims to accede to the EU and is trying to ensure sustainable economic development in the long-term.

Assessment of the national framework for CAMP Montenegro implementation

Significant progress has been made in Montenegro over the course of the last few years with adoption of new laws and strategic planning for sustainable development and ICZM. On the other hand, limited capacities and weaknesses in cooperation and coordination among various parts of administration are slowing down the implementation of the new legislation, policies and sustainable development strategies, and present an obstacle for putting into practice integrated management approaches.

Large number of laws regulates issues relevant to coastal zone management. Some of these laws are outdated and there is a need to revise them. Others were adopted recently, within the process of harmonising national legislation with the EU *acquis communautaire*. There is also a growing number of tasks related to the implementation of ratified international agreements. In such a situation, a concern that arises is to which extent are legal reforms followed with strengthening of institutions to enable them to implement new regulations and policies. There is an apparent risk of widening of an already existing 'implementation gap'.

Overall, strategic framework for ICZM and sustainable development in Montenegro is favourable. Sustainable development is widely accepted as a preferred development concept, however there is a risk of remaining at a declarative level rather than integrating sustainability requirements into development policies and putting integrated management in practice. This is especially relevant for the coastal area where short-term economic gains may take precedence over longer-term sustainability requirements. There is a lack of experience with ICZM and instruments for resolving pronounced conflicts in different land/ sea uses in the coastal zone in a sustainable way. At the same time, there is a lack of indicators to measure progress towards sustainability.

There is a large number of projects and initiatives aimed at preserving natural resources at the coast and stimulating development. In such conditions, there are substantial opportunities to achieve synergetic effects and ensure CAMP's sustainability in the long term.

Capacities of the existing institutions (at both national and local levels) for integrated management are limited in terms of human and technical resources, financial resources and knowledge and practical experiences. There is a particular need to strengthen environmental and maritime administration and institutions in relation to the EU integration process and in the light of implementation of Barcelona Conventions and its protocols. In order to respond to ICZM Protocol requirements (and to implement national priorities) there is a need to establish a new structure for coastal zone management, while preserving and utilising capacities of the existing institutions and ensuring better coordination between them at all levels. Furthermore, there is a need for more transparent/ participatory ways of decision-making in the coastal zone and a more substantial involvement of municipalities in managing public maritime domain. Capacities of private and civil sectors need to be utilised to a greater extent in order to achieve better overall outcomes.

CAMP area

Starting point for the proposal of CAMP Montenegro area was the definition of coastal area adopted by the draft Strategy for ICAM (marine border at the outer line of the territorial sea, land border coinciding with administrative borders of six coastal municipalities with an exception of the Skadar Lake National Park territory in Bar municipality). Based on discussions with different stakeholders, expressed national and local interest and with a view to the guidelines stated in the Terms of Reference for the Study, three possible options were identified for CAMP Montenegro area:

1. Boka Kotorska with Herceg Novi, Kotor and Tivat municipalities;
2. Bar and Ulcinj municipalities;
3. The entire coastal area.

The Feasibility Study proposes entire coastal area as a geographic area in which CAMP Montenegro will be implemented. Arguments in favour of this option include the fact that the systemic problems which need to be addressed to ensure sustainable development of the coastal zone are the same for the entire region, and that the coastal area is relatively small (surface of around 1,500 km², total length of the coastline of 300 km, and less than 150 km of above ground distance). Given the fact that Montenegro recently signed ICZM Protocol of Barcelona Convention and that a national strategy for ICAM will be adopted soon, implementation of CAMP Montenegro for the whole coastal area would be important as it could help to address some of the core issues and challenges. Both national and local interest has been shown for including the whole coastal area for CAMP Montenegro.

Coastal area: the main development trends and issues

Coastal area is relatively well developed and it is the most densely populated part of Montenegro, with attractive yet fragile natural environment. Tourism is the key economic sector. The country has regained position of an attractive tourist destination on the international market, and there is a high interest of investors to develop further capacities along the coast. The Tourism Master Plan projects several-fold increase in the total number of beds until the year 2020, emphasising the need for a sharp increase in basic

capacities/ hotel beds but also recommending some tourism density limits for new capacities. The revised Master Plan is expected to have even stronger emphasis on the need to integrate sustainability criteria in tourism planning.

Other sectors where substantial growth can be expected/ is planned are maritime transport (with related development of port facilities), industry and agriculture. A significant expansion of the Port of Bar is envisaged, as a part of development of a port-industrial complex with associated free economic zone. Another strategic location for industrial development is Grbaljsko field (Kotor/ Tivat municipalities), also with a free economic zone. Zones of local importance for industrial development are smaller locations in Tivat, Sutorinsko (Herceg Novi) and Ulcinjsko field.

As for agriculture, agricultural land is planned to be preserved (and agriculture developed) on a minimum of 8,900 ha in Vladimirska and Ulcinjska fields (Ulcinj) i.e. on a minimum of 3,000 ha in Grbaljsko, Mrcevo and Tivatsko fields (Kotor/ Tivat).

Major transport infrastructure projects that are planned/ being considered are Adriatic speedway (Herceg Novi – Ulcinj) and construction of Verige bridge. Two or three regional/ municipal landfills are planned in the coastal zone.

Based on a review of the main development trends and the assessment of the legal, policy and institutional context, the Feasibility Study has identified the following main issues and challenges for integrated coastal zone management and sustainable development:

1. Ensuring better horizontal and vertical coordination between different parts of administration;
2. Managing pressures from urbanization and tourism development;
3. Application of tools and mechanisms for ICZM;
4. Protecting valuable marine and terrestrial ecosystems and cultural heritage;
5. Reducing pollution from land based sources (including waste, wastewater, industry);
6. Reducing pollution from maritime activities;
7. Formulating land use policy, etc.

CAMP goals and activities

The main goals of CAMP Montenegro are:

- to help achieve sustainable development of coastal area;
- to support implementation of the national policies and ICZM Protocol;
- to promote integrated and participatory planning and management in the coastal area;
- to build national and local capacities for ICZM and raise awareness on the importance of coastal area, complexity and fragility of its ecosystems and on the need for integrated approaches in managing them; and
- to facilitate transfer of knowledge on ICZM tools and approaches.

Feasibility of a wide range of activities and their level of priority for CAMP Montenegro were then assessed based on the following set of criteria:

- significance (as expressed by different stakeholders);
- relevance for the implementation of national policies and strategies;
- national and local interest;
- compatibility with CAMP objectives and contribution to regional/ global processes;
- links with ongoing and planned projects and activities (possibilities to create synergies and possibilities for follow up activities).

Furthermore, experience with implementation of CAMPs in other countries and available guidelines on the structure and activities of the Programme were considered. As a result, the following six priority areas have been identified to be addressed by CAMP Montenegro:

1. Horizontal activities;
2. Institutional arrangements and coordination for ICZM and application of ICZM tools;
3. Establishment and management of protected areas (with special emphasis on marine protected areas);
4. Monitoring and information system;
5. Capacity building and awareness raising; and
6. Pollution control and reduction.

Justification of CAMP Montenegro

The coastal area of Montenegro is an area with high development potential where there are complex relations between human activities and natural environments and pronounced pressures on natural resources. In order to preserve the development potential, primarily through preservation of resource base of the area and qualities of the natural and manmade environments, it is necessary to provide for integrated approaches in planning and in managing the coastal area.

The concept of ICZM is embedded in a number of policies and strategic documents in Montenegro. Notwithstanding high level of commitment to sustainable development in the coastal area, there is an apparent need for further capacity building, training and awareness raising on ICZM.

The main strategic orientation of the country is accession to the EU, and there is ongoing process of harmonisation of national legislation with the EU *acquis*. Integrated management concepts and tools are thus being increasingly incorporated into the national legal framework. The country has ratified Barcelona Convention and four of its 'older' protocols, and in January 2008, the ICZM Protocol has been signed.

The existing institutional framework, even though with pronounced weakness in respect to coordination and overall capacities, has substantial strengths and potentials for ICZM. Interest for CAMP implementation was expressed both at national and local level.

The National Lead Agency for CAMP Montenegro will be the Ministry of Tourism and Environment. As the National Lead Agency, MTE will have overall responsibility for CAMP formulation and implementation, in coordination with other stakeholders and sectoral Ministries, in particular with the Ministry for Economic Development. A Steering Committee will be established comprising the key stakeholders for the CAMP to oversee the process. MAP National Focal Point will act as a Project Director with main responsibilities to coordinate and guide CAMP process and chair the Steering Committee sessions. In this work, Project Director will be assisted by the MTE staff.

Part of the operational and project management tasks for CAMP which will be responsibility of Montenegrin institutions will be executed through a Project Implementation Unit (PIU) and Project Coordinator.

The coordinating unit of MAP (MEDU) will act as the overall international project coordinator and will be responsible for exercising guidance and supervision over the CAMP Montenegro implementation, in cooperation with MTE as the National Lead Agency. PAP/ RAC will assume operational tasks for coordination, guidance and implementation of the CAMP, in cooperation with Project Director and Project Coordinator on the Montenegrin side. PAP/ RAC will also coordinate the activities of the other RACs that will be involved in the CAMP Montenegro, including Blue Plan (BP), Clean Production Centre (CP), Specially Protected Areas (SPA), Regional Marine Emergency Response Centre (REMPEC) and possibly Information and Communication Centre (INFO). The involved RACs will provide, in coordination with PAP/RAC and in cooperation with the relevant national authorities,, specific expertise to support implementation of CAMP activities.

Total proposed budget for CAMP Montenegro is € 456,000. Out of this amount, MAP contribution will be € 177,000. National contribution to CAMP financing will be € 279,000, out of which 23,000 will be in kind contribution (provision of premises, staff time and data). MTE will provide a predominant share of national financing – the amount is estimated at € 240,000, while the remaining funds will come from other relevant ministries and local budgets.

Initiation stage (preparatory activities) of CAMP Montenegro is planned to be finalised during 2008, leading to Project Agreement (to be signed between PAP/ RAC and MTE) by the end of the year. Detailed formulation (inception report) is planned for the first half of 2009, to be carried out in parallel with other activities of the CAMP formulation stage. Implementation phase of CAMP Montenegro is planned from mid-2009 to mid-2011.

1 Context

1.1 Introduction

The decision to carry out CAMP project for Montenegro was approved at the 14th Ordinary Meeting of the Contracting Parties to the Barcelona Convention held in November 2005 in Portoroz, Slovenia. CAMP is a Mediterranean Action Plan (MAP) initiative aiming to introduce Integrated Coastal Area Management (ICAM)² at local and national level and to contribute to institutional strengthening for integrated management approaches. It is a collaborative effort between MAP and its Regional Activity Centres (RACs) – first of all the Priority Actions Centre (PAP), national and local authorities and international funding institutions. Through the CAMPs, MAP extends assistance to the Mediterranean countries in solving urgent environmental problems and introducing ICAM as the basic tool to achieve sustainable development at the selected sites in their coastal regions.

Feasibility Study for CAMP Montenegro was designed and undertaken in a way to meet the following objectives³:

- inspect the existing strategic, policy and institutional context encompassing the area where the CAMP activities could be carried out;
- define the area for CAMP;
- collect and present the available relevant information on the strategic, policy and institutional context at the national level and at the level of the study area;
- define the possible activities from the point of view of the national and local interests;
- assess the international context where CAMP Montenegro could be implemented;
- assess the possibilities for the implementation of the CAMP; and
- assess the possibilities for a long-term sustainability of the project.

In order to achieve these objectives, several activities were carried out in the period January – May 2008, including data collection, field visits and discussions with relevant stakeholders from different sectors (both on national and local levels), situation analysis and presentation of findings/ preparation of this report. Comments and suggestions to the draft Study were provided by the Ministry of Tourism and Environment of Montenegro and PAP/ RAC, and have been integrated in this final version.

The report comprises 4 Chapters. A general framework (policies, laws, institutional set up and relevant programmes/ projects) for CAMP Montenegro is describes and assessed in Chapter 1. The following Chapter (Chapter 2) contains detailed description of the coastal region in Montenegro and presents proposals of the geographical area for CAMP

² Terms ‘coastal area’ and ‘coastal zone’ (i.e. ‘integrated coastal area management – ICAM’ and ‘integrated coastal zone management – ICZM’) are used interchangeably in this Study.

³ As defined in the Terms of Reference that are annexed to this report (see Annex 5)

Montenegro (three options are included and elaborated). Proposal of CAMP activities and justification of the CAMP Montenegro are described in Chapters 3 and 4.

Preparation of the Study was supported by PAP/ RAC from Split and was conducted in close collaboration with the Ministry of Tourism and Environment of Montenegro.

1.2 The rationale for CAMP Montenegro

Under the existing legal/ policy framework in Montenegro, two planning and management units at the coast are of particular relevance for the issues examined in this Study. These are:

1. Public Maritime Domain (*'morsko dobro'*), defined in the respective 1992 Law as a special purpose area covering narrow coastal belt along the entire seashore (at least 6 meters ashore from the line that highest waves reach during the time of strongest storm, comprising a land area with the surface of some 60 km²) and the internal waters and territorial sea with the surface of around 2,500 km²; and
2. 'Coastal area' defined in the draft National Strategy on Integrated Coastal Area Management (NS ICAM) as an area with the following boundaries:
 - a. the marine border is outer line of the territorial sea;
 - b. the land border is set at the administrative borders of coastal municipalities⁴ towards hinterland, with an exception of the Skadar Lake National Park territory in Bar municipality (approximately 1,500 km²).

The administrative structure in Montenegro does not include regional level (only national and local, with local government being currently performed through 21 municipalities), yet the territory of six coastal municipalities is usually referred to as the 'Coastal' or Southern Region' based on their similarities in socio-economic, geo-morphological and environmental conditions⁵.

Coastal Region is the most developed and the most densely populated part of Montenegro. It is well known for its natural attractions and cultural heritage. As such, it has been of particular interest for the development of tourism, which is seen as one of the main drivers of the country's economic recovery and development. Contribution of tourism to GDP is at the level of 15% (and growing), with the predominant share of tourism in the coastal area; the sector accounts for 15% of total employment. The World Travel and Tourism Council sees opportunities for the country to increase the contribution of tourism to 21 percent of GDP by 2014, but only if natural resources are managed in a way that attracts higher value-added tourism. Other important economic activities in the coastal region include maritime activities, agriculture, fishing and others. The region is also considered an attractive area for living, which has caused continuous migrations (within Montenegro) towards the south, and more recently the region's real estate market has attracted many international buyers.

⁴ There are six coastal municipalities and they are (from northern part of the coast towards south): Herceg Novi, Kotor, Tivat, Budva, Bar and Ulcinj.

⁵ Other (informally recognised) regions in Montenegro are Central and Northern Regions.

Responses to mitigate and manage the pressures on natural resources and environment have not been developing at the same pace as economic pressures⁶, even though a number of initial steps has been undertaken to develop and implement strategies and tools for sustainable development of the coastal zone. Montenegro has adopted National Strategy for Sustainable Development⁷ in 2007, National Strategy for ICAM is in the final stages of adoption, and in January 2008, the country signed Barcelona Convention Protocol on Integrated Coastal Zone Management in the Mediterranean (ICZM Protocol)⁸, to mention just a few examples.

Accession to the EU is an overall priority for Montenegro. Stabilisation and Association Agreement has been signed in 2007 and the country is in the process of gradually adjusting its policies and practices to the EU ones. Efforts to develop system for integrated coastal zone management and ensure its sustainable development are an inseparable part of the accession process, since integrated management approaches and sustainable development lie at the core of EU policies. Implementation of the new laws, policies and strategies, however, represents a significant challenge.

A wide range of EU policies and legislation address specific problems evidenced in marine and coastal environments, including:

- Birds Directive (79/409/EEC)
- Bathing Waters Directive (76/160/EEC); new directive entered into force in 2006 (2006/7/EC)
- Nitrates Directive (91/676/EEC)
- Urban Waste Water Treatment Directive (UWWT) (91/271/EEC)
- Habitats Directive (92/43/EEC)
- Integrated Pollution Prevention and Control Directive (IPPC, 96/61/EC) and other legislation relating to dangerous substances.

Other significant pieces of legislation and EU developments that are of relevance for coastal area management include Water Framework Directive (which was the first EU legal instrument to adopt an ecosystem-based approach), the 2002 Recommendation on ICZM, application of the Natura 2000 ecological network to the marine environment⁹, and review of the Common Fisheries Policy (CFP), with integration of environmental issues. New EU policies following an ecosystem-based approach are being developed or implemented, including the 2005 European Marine Strategy, the 2007 Blue Book: Integrated Maritime Policy for the European Union, and proposed Marine Strategy Directive. Also relevant are Strategic Environmental Assessment (SEA, 2001/42/EC) and Environmental Impact Assessment (EIA, 97/11/EC) Directives.

⁶ Pressures and their impacts will be discussed in detail in chapter 2 of this report.

⁷ Developed with the assistance of MAP (among other donors) and in line with the Mediterranean Strategy for Sustainable Development.

⁸ Ratification of the Protocol is planned for 2008.

⁹ An overview of the share of coastal zones protected under Natura 2000 in Europe can be seen from Annex 7.

With all of this in mind, it can be said that CAMP Montenegro is well placed and timed to provide an impetus and contribute to implementation of NS ICAM and ICZM Protocol in Montenegro. Successful application of the concept of integrated (ecosystem based) approach to management of natural resources is of crucial importance as the country aims to accede to the EU and is trying to ensure sustainable economic development in the long-term.

Before further elaboration on the feasibility of CAMP Montenegro, Box 1-1 is included below to present (and remind on) the basic elements of ICZM Protocol.

Box 1-1: Content of the ICZM Protocol: Definitions, Structure and Regulated Issues

DEFINITIONS

“Coastal zone” means the geomorphologic area either side of the seashore in which the interaction between the marine and land parts occurs in the form of complex ecological and resource systems made up of biotic and abiotic components coexisting and interacting with human communities and relevant socio-economic activities.

“Integrated coastal zone management” means a dynamic process for the sustainable management and use of coastal zones, taking into account at the same time the fragility of coastal ecosystems and landscapes, the diversity of activities and uses, their interactions, the maritime orientation of certain activities and uses and their impact on both the marine and land parts.

PART I OF THE ICZM PROTOCOL: GENERAL PROVISIONS (integral text of the Articles 5, 6 and 7)

OBJECTIVES OF INTEGRATED COASTAL ZONE MANAGEMENT

The objectives of integrated coastal zone management are to:

- (a) facilitate, through the rational planning of activities, the sustainable development of coastal zones by ensuring that the environment and landscapes are taken into account in harmony with economic, social and cultural development;
- (b) preserve coastal zones for the benefit of current and future generations;
- (c) ensure the sustainable use of natural resources, particularly with regard to water use;
- (d) ensure preservation of the integrity of coastal ecosystems, landscapes and geomorphology;
- (e) prevent and/or reduce the effects of natural hazards and in particular of climate change, which can be induced by natural or human activities;
- (f) achieve coherence between public and private initiatives and between all decisions by the public authorities, at the national, regional and local levels, which affect the use of the coastal zone.

GENERAL PRINCIPLES OF INTEGRATED COASTAL ZONE MANAGEMENT

In implementing this Protocol, the Parties shall be guided by the following principles of integrated coastal zone management:

- (a) The biological wealth and the natural dynamics and functioning of the intertidal area and the complementary and interdependent nature of the marine part and the land part forming a single entity shall be taken particularly into account.
- (b) All elements relating to hydrological, geomorphological, climatic, ecological, socio-economic and cultural systems shall be taken into account in an integrated manner, so as not to exceed the carrying capacity of the coastal zone and to prevent the negative effects of natural

disasters and of development.

- (c) The ecosystems approach to coastal planning and management shall be applied so as to ensure the sustainable development of coastal zones.
- (d) Appropriate governance allowing adequate and timely participation in a transparent decision-making process by local populations and stakeholders in civil society concerned with coastal zones shall be ensured.
- (e) Cross-sectorally organized institutional coordination of the various administrative services and regional and local authorities competent in coastal zones shall be required.
- (f) The formulation of land use strategies, plans and programmes covering urban development and socio-economic activities, as well as other relevant sectoral policies, shall be required.
- (g) The multiplicity and diversity of activities in coastal zones shall be taken into account, and priority shall be given, where necessary, to public services and activities requiring, in terms of use and location, the immediate proximity of the sea.
- (h) The allocation of uses throughout the entire coastal zone should be balanced, and unnecessary concentration and urban sprawl should be avoided.
- (i) Preliminary assessments shall be made of the risks associated with the various human activities and infrastructure so as to prevent and reduce their negative impact on coastal zones.
- (j) Damage to the coastal environment shall be prevented and, where it occurs, appropriate restoration shall be effected.

COORDINATION

1. For the purposes of integrated coastal zone management, the Parties shall:

- (a) ensure institutional coordination, where necessary through appropriate bodies or mechanisms, in order to avoid sectoral approaches and facilitate comprehensive approaches;
- (b) organize appropriate coordination between the various authorities competent for both the marine and the land parts of coastal zones in the different administrative services, at the national, regional and local levels;
- (c) organize close coordination between national authorities and regional and local bodies in the field of coastal strategies, plans and programmes and in relation to the various authorizations for activities that may be achieved through joint consultative bodies or joint decision-making procedures.

2. Competent national, regional and local coastal zone authorities shall, insofar as practicable, work together to strengthen the coherence and effectiveness of the coastal strategies, plans and programmes established.

PART II OF THE PROTOCOL: ELEMENTS OF ICZM (issues regulated, with comments and selected text)

PROTECTION AND SUSTAINABLE USE OF THE COASTAL ZONE

... includes a requirement to define a set back line.

ECONOMIC ACTIVITIES

... the Parties shall:

- (b) ensure that the various economic activities minimize the use of natural resources and take into account the needs of future generations;
- (d) ensure that the coastal and maritime economy is adapted to the fragile nature of coastal zones and that resources of the sea are protected from pollution;
- (e) define indicators of the development of economic activities to ensure sustainable use of coastal zones and reduce pressures that exceed their carrying capacity;
- (f) promote codes of good practice among public authorities, economic actors and non-

governmental organizations.

SPECIFIC COASTAL ECOSYSTEMS

The Parties shall take measures to protect the characteristics of certain specific coastal ecosystems... (specific coastal ecosystems refer to wetlands and estuaries, marine habitats, coastal forests and woods, and dunes)

COASTAL LANDSCAPES

ISLANDS

CULTURAL HERITAGE

PARTICIPATION

AWARENESS-RAISING, TRAINING, EDUCATION AND RESEARCH

PART III OF THE PROTOCOL: ICZM INSTRUMENTS (issues regulated, selected text)

MONITORING AND OBSERVATION MECHANISMS AND NETWORKS

MEDITERRANEAN STRATEGY FOR INTEGRATED COASTAL ZONE MANAGEMENT

NATIONAL COASTAL STRATEGIES, PLANS AND PROGRAMMES

... coastal plans and programmes, which may be self-standing or integrated in other plans and programmes, shall specify the orientations of the national strategy and implement it at an appropriate territorial level, determining, *inter alia* and where appropriate, the carrying capacities and conditions for the allocation and use of the respective marine and land parts of coastal zones.

ENVIRONMENTAL ASSESSMENT

LAND POLICY

ECONOMIC, FINANCIAL AND FISCAL INSTRUMENTS

PART IV OF THE PROTOCOL: RISKS AFFECTING COASTAL ZONE (issues regulated)

NATURAL HAZARDS

COASTAL EROSION

RESPONSE TO NATURAL DISASTERS

Source: ICZM Protocol

1.3 Legislative framework for the ICZM

1.3.1 Montenegro and Barcelona Convention

After the independence, Montenegro has ratified the 1995 Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) and four of its Protocols in October 2007. The ratified Protocols are:

- Protocol for the Prevention and Elimination of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea (Dumping Protocol);

- Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea (Emergency Protocol);
- Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol); and
- Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA and Biodiversity Protocol).

As already mentioned, Montenegro signed and intends to ratify the new instrument of the Convention – ICZM Protocol – in 2008.

As a part of justification study prepared for the Law on Ratification of Barcelona Convention, a set of measures necessary for the implementation of ratified instruments was identified. Implementation of these requirements is proceeding gradually, in parallel with the implementation of provisions from the complementary international agreements and national legislation.

1.3.2 National legal framework

National legal framework relevant for the implementation of the integrated coastal zone management is undergoing changes in light of country's aspirations to join the EU and consequent harmonisation of national regulations with those of the EU. Several new laws pertinent to the coastal zone management have been adopted (or came into force) during the last couple of years, and drafting and adoption of new legislation is ongoing in different areas. Several draft laws are in the adoption procedure (this especially refers to maritime regulations). A provision on 'ecological state' is integrated in the new Montenegrin Constitution, following on the 1991 Parliamentary *Declaration on the Ecological State of Montenegro*.

A wide range of regulations of relevance to IZCM and CAMP Montenegro are presented in the following sub-sections.

1.3.2.1 Law on Public Maritime Domain

The Law on Public Maritime Domain (Official Gazette of the Republic of Montenegro No. 14/92) defined the scope of this special purpose area and designated it as a public asset with unrestricted access, managed on by behalf of the state by a specialized agency called Public Enterprise *Morsko dobro*¹⁰.

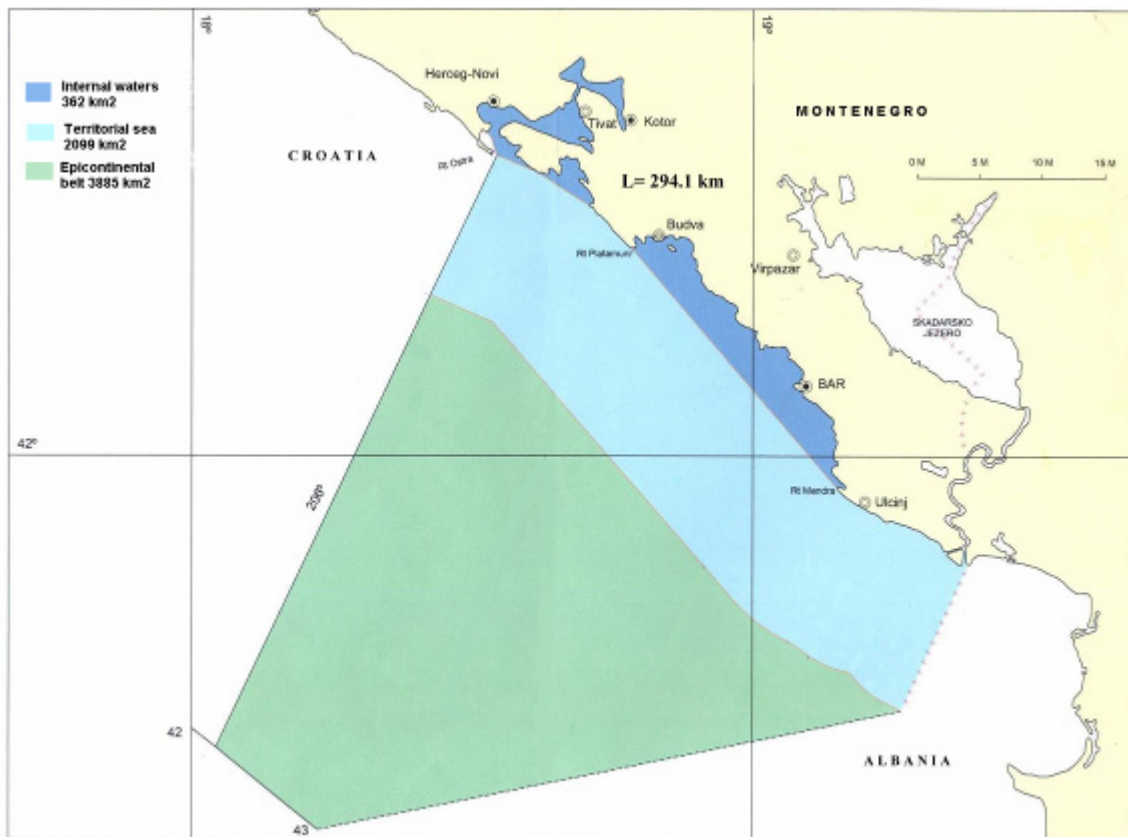
Article 2 of the Law stipulates that public maritime domain (PMD) includes: "sea shore, ports, breakwaters, slipways, rifts, sand-banks, swimming areas, cliffs, bayous, crag, submarine springs, springs and wells on the shore, mouths of the rivers flowing into sea, channels connected with sea, submarine resources, sea bed and subsoil resources as well

¹⁰ 'Morsko dobro' means public maritime domain.

as internal sea waters and territorial waters, biotic and abiotic resources in the internal sea waters, territorial waters and epicontinental belt". Figure 1-1 indicates the main sea zones and respective surfaces.

Territory of public maritime domain on land is defined in the Article 3 of the Law as a "zone of mainland marked with the line that highest waves can reach during the strongest storms as well as the part of the mainland which according to its nature or purpose provides for the use of sea for maritime traffic, fishing and for other uses of sea, which is at least 6 meters wide starting from the line that highest waves reach during the time of strongest storm."

Figure 1-1 Sea zones



Source: Jelena Knezevic's presentation for the 2nd Round Table on the Protection and Sustainable Development of Montenegrin Coast, Kotor, February 2008

The total surface of land comprising public maritime domain is 57.9 km² and its distribution by municipality is shown in the Table 1-1.

Table 1-1: Surface of Public Maritime Domain and its share by municipality

Municipality	Surface of PMD (in ha)	Share in total PMD (%)	Share of PMD in municipal territory (%)
Herceg Novi	491.7	8.49	2.1
Kotor	215.9	3.73	0.6
Tivat	746.3	12.89	16.2
Budva	220.6	3.81	1.8
Bar	796.5	13.76	1.3
Ulcinj	3,318.4	57.32	13.0
Total	5,789.4	100	3.6

Source: Spatial Plan of the Special Purpose Area Public Maritime Domain (SP *Morsko dobro*)

Management of the area is entrusted to Public Enterprise (PE) *Morsko dobro*, while central and local governments retain administrative competences in relation to adoption of plans and programmes, performing administrative and inspection supervision etc. PE *Morsko dobro* is authorised to conclude contracts on the lease and use of certain parts of public maritime domain.

1.3.2.2 Environmental, nature protection and cultural heritage legislation

The framework **Environment Law** (Official Gazette of the RM, No. 12/96, 55/00) describes the objectives and sets up the basic principles of environmental protection, including: 1) conservation of natural resources, 2) preservation of biological diversity, 3) reduction of environmental risks, 4) environmental impact assessment, 5) alternative solutions, 6) substitution of chemicals, 7) re-use and re-cycling, 8) polluter pays, 9) user/consumer pays, 10) mandatory pollution insurance, 11) public access and involvement, and 12) public information on the state of the environment. The Law also sets up the general guidelines for environmental protection measures, monitoring, establishment of an environmental information system, liability of environmental pollution, environmental financing, the rights of non-governmental organisations, supervision of the law and the derived regulations, and prescribes fines for non-compliance. A comprehensive revision of the Environment Law is under way.

In 2005, five legal acts were adopted, including: Law on Environmental Impact Assessment (EIA), Law on Strategic Environmental Assessment (SEA), Law on Integrated Pollution Prevention Control (IPPC), Law on Waste Management, and Law on Environmental Noise. These laws were drafted within the process of harmonisation of national with the EU legislation, and have to a large extent transposed provisions of the relevant EU directives, including those on public access to environmental information and public participation in decision-making. The EIA, SEA and IPPC Laws came into effect on 1 January 2008, while Waste Management Law will come into force in November 2008 (regulation on noise came into effect immediately after its adoption in 2005).

Law on Environmental Impact Assessment (Official Gazette of the RM, No. 80/05) prescribes procedures for carrying out an EIA and describes the type of projects that

require such an assessment. The Law was developed based on the EU Directive on the assessment of the effects of certain public and private projects on the environment (85/337/EC with amendments). A bylaw transposing annexes of the Directive (lists of projects for which the impact assessment is mandatory and of those for which the impact assessment may be required) has also been passed.

Law on Strategic Environmental Assessment (Official Gazette of the RM, No. 80/05) prescribes the SEA procedure (from screening to approval stage), including public participation and transboundary effects. Plans and programmes for which the SEA is mandatory i.e. sectors in which such plans/ programmes are prepared are specified in the Law. The SEA is also required for plans and programmes if they set the framework for future development projects that are subject to the EIA and could affect protected areas, natural habitats and preservation of wildlife plant and animal species. The sectors requiring SEA are agriculture, forestry, fisheries, energy, transport, waste management, water management, regional development, tourism, spatial planning or land use, and industry including mining. For other plans and programmes, the need to conduct SEA is determined on a case-by-case examination. Provisions for procedures in cases of potential transboundary effects are in line with the SEA Directive and the Convention on Environmental Impact Assessment in a Transboundary Context.

The 2005 IPPC regulation (**Law on Integrated Prevention and Pollution Control**, Official Gazette of the RM, No. 80/05) regulates environmental pollution prevention and control through integrated permits for installations and activities that may have a negative impact on human health, the environment or material resources. It lays down measures designed to prevent or to reduce emissions to air, water and soil, including measures concerning waste, efficient energy consumption, reduction of noise and vibrations, use of raw materials, prevention of accidents, and risk assessment. The integrated permitting system is based on the concept of best available technology (BAT).

Drafting of bylaws/ related regulations is underway, for the following areas:

- activities and installations that are subject to integrated permits;
- the contents of programmes of measures for bringing the existing installations or activities in compliance with the set conditions;
- criteria for determination of the BAT;
- criteria for determination of emission limit values for integrated permits; and
- contents and methods for keeping the register of issued integrated permits.

Waste Management Law (Official Gazette of the RM, No. 80/05) creates basic legal frame for managing wastes and sets conditions for implementation of the national Strategic Master Plan for Solid Waste. Provisions of the Law:

- prescribe the requirements for the elaboration of waste management plans;
- define competences, responsibilities and obligations related to waste management; and
- set out principles for
 - managing particular waste streams,
 - incineration, disposal and storage of waste,

- monitoring, and
- setting the fines and penalties.

Further harmonization with the EU waste legislation is under way, through e.g. preparation of the Law on Packaging and Packaging Waste and a set of bylaws on specific waste streams.

Situation with regulations on other environmental management instruments:

Voluntary approaches are not regulated yet, while it is expected that the revised Environment Law will set the basis for Eco-Management and Audit Scheme, eco labels and similar instruments. Some incentives for voluntary implementation of ISO 9000 and ISO 14000 standards have been provided through the Government's Quality System Implementation Strategy (last revised in 2003). Economic instruments (environmental charges) are regulated under the Environment Law and related **Decree on the Level, Methods for Calculation and Ways of Payment of Environmental Pollution Charges** (Official Gazette of the RM, No. 26/97). Revision of the regulations on environmental charges and environmental financing is planned.

Besides the above-mentioned, it is also worth of mentioning that in 2007 two more framework laws were adopted harmonizing further national environmental legislation with the EU directives and regulations. These are **Law on Chemicals** (Official Gazette of the RM No. 11/2007) and **Air Quality Law** (Official Gazette of the RM No. 48/07).

Nature Protection Law (Official Gazette of the SRM, No. 36/77, 2/89) defines measures for protection of natural areas and objects that have special qualities or represent natural rarities, and are thus of particular value to the society. Furthermore, the Law prescribes procedures for placing under protection different natural objects, the ways for keeping registers on protected natural objects and protection measures during investment works and in the process of development of spatial and other plans. National categories of protected natural objects have also been established under this Law and they include: natural parks and landscapes, natural reserves, monuments of nature, memorial and natural monuments, as well as individual plant and animal species. Based on this Law, Republican Nature Protection Institute (as the competent authority) passed appropriate decisions on placing under protection certain natural objects. This does not refer to national parks, which are designated based on the separate Law on National Parks (Official Gazette of the RM, No. 47/91, 27/94). The Nature Protection Law is outdated, and the preparation of the new law is in final stages. The new law will transpose Habitats (92/43/EEC) and Birds (79/409/EEZ) Directives.

According to the **Decision on Protection of Certain Plant and Animal Species** (Official Gazette of the RM No. 76/06), 415 plant and 430 animal species, as well as all bats, have been placed under protection due to their rareness and/or endangerment.

Law on Protection of Cultural Monuments (Official Gazette of the RM No. 47/91) regulates the system for protection and use of cultural monuments, rights and obligations of legal and physical persons in respect to protection of cultural monuments, organisational set up of institutes tasked with protection of cultural monuments, protection measures etc. Cultural monuments comprise: movable and immovable objects

as well as groups of objects and items, historic, archaeological, artistic, aesthetic, ethnologic, architectural, urban, sociological and technical units or other scientific and cultural values that are important for Montenegrin history and culture.

The Law protects all the cultural monuments regardless of the fact who owes them, and the protection also applies to the protected environment around immovable cultural monuments. Objects for which it is reasonably presumed that they have qualities of cultural monuments are under so called pre-emptive legal protection.

Status of an immovable cultural monument is determined by the Montenegrin Parliament following a proposal from the Republican Institute. Implementation of policies on protection of immovable cultural monuments as well as implementation of specific protection activities is responsibility of the Republican Institute for Protection of Cultural Monuments (based on Cetinje) and the Regional Institute for Protection of Cultural Monuments (based in Kotor).

1.3.2.3 Natural resources laws

Water Law (Official Gazette of the RM, No 27/07) regulates status and the ways for managing all types of water, water resources and objects, as well as other matters of relevance for water resources management. The Law is based on integrated river basin management, establishment of integral water information system, sustainable development, long-term protection of water quality, economic water pricing inline with the 'user/ polluter pays' principle and application of BAT. Water management duties are under this Law assigned to a separate state administration body – Water Administration. Establishment of Water Council is also envisaged, as an expert and advisory body to the Government. In drafting of the Law, an effort was made to harmonise it with the Water Framework Directive 2000/60/EC (WFD). Preparation of a large number of bylaws envisaged under the Water Law is underway. These bylaws will provide for the implementation of the Law and for further transposition of relevant EU Directives – 'daughter' directives of WFD, including Bathing Waters (2006/7/EC), Nitrates (91/676/EEC) and Urban Waste Water Treatment Directives (91/271/EEC).

Law on Forests (Official Gazette of the RM, No. 55/00) defines forests and forest areas as natural resources and assets that are of general public interest, which can be state or privately owned. Competent state administration body is performing forest management (as an activity of public interest) in an integral manner on the territory of the whole country. Forests can be used based on concessions or annual contracts issued by competent authority, while collected funds are meant for aforestation, cultivation and protection of forests, planning and similar activities. Forests in the coastal area of Montenegro mainly have a protective and ambient function.

Law on Hunting (Official Gazette of the RM, No. 47/99) regulates hunting, raising, protection and use of game. The Government determines hunting grounds based on a proposal of competent ministry. Rights to use and manage hunting grounds are issued based on a public advertisement. Specific regulations on the duration of hunting season and the periods of prohibited hunting are passed by the relevant ministry, which is also in charge for law enforcement through its hunting inspectorate. Users of hunting grounds

are obliged to manage them in line with relevant regulations and to set aside a share of their revenues for improvement of conditions in the area.

Law on Sea Fishing (Official Gazette of the RM, No. 55/03); under this Law, sea fishing is understood as a process of managing biological resources of the sea, including fishing, protection and breeding of fish and other sea species. Fish and other sea species, as well as marine biodiversity are protected from degradation of their living environments and resources overuse. Protection of fisheries and marine biodiversity is performed through permanent measures aimed to preserve biological reproduction potentials and environmental conditions. A new law on sea fishing is currently being drafted.

Law on Agricultural Land (Official Gazette of the RM, no. 15/92, 59/92); agricultural land, as an asset of general public interest, is a subject to particular protection and can be used under the conditions and rules described in this Law. Agricultural land refers to all types of land that are or can be used for agricultural production. It can be used for non-agricultural purpose temporarily or permanently. Purpose of agricultural land can be permanently changed only if such a change is envisaged under the relevant urban plans or detailed elaborations of spatial plans.

Mining Law (Official Gazette of the RM, no. 28/93, 27/94) and **Law on Geological Research** (Official Gazette of the RM, no. 28/93, 26/07) regulate research, use and exploitation of mineral resources such as sand, stone and others. Oil and gas exploration will be regulated under a separate law, the preparation of which is under way.

1.3.2.4 Spatial planning and construction legislation

Law on Spatial Planning and Development (Official Gazette of the RM, No. 28/05) determines, among other things, responsibilities for development of different types of spatial and urban plans. Either national or local level administration is responsible for preparation of plans, depending on the type of plan in question. Responsibilities for application of plans are divided in the same way (as responsibilities for plan development) and are linked to administrative procedures for issuing decisions on specific locations (necessary in order to develop certain area). Depending on the type and scale of a project, decisions on locations are issued by local administration or ministry responsible for spatial planning (currently Ministry for Economic Development).

At the national level, the following plans are developed (adopted by the Parliament): national spatial plan; spatial plans for special purpose areas (prepared for public maritime domain and national parks); detailed spatial plan (prepared e.g. for infrastructure systems); and studies of locations (detailed plans for certain areas within public maritime domain). Development of national and of special purpose areas spatial plans is mandatory.

On the local level, the following plans (adopted by municipal assemblies) can be developed: municipal spatial plan (covering the whole area of respective local government unit), general urban plan, detailed urban plan, urban project and local studies

of locations. Development of municipal spatial plan and of general urban plans for municipal centres is mandatory.

In anticipation of EU standards regarding the SEA, the Law made strategic assessment mandatory for all types of plans. It also prescribed harmonisation of the lower level plans with the ones of higher order. Under the provisions of the planning Law, municipalities have to develop their (harmonised) spatial and general/ detailed urban plans within 3 years of the adoption of national spatial plan.

Law on Construction (Official Gazette of the RM, 55/00) *inter alia* regulates competences for issuance of construction permits. Construction permits for development of objects and facilities are issued by local government units (municipalities) except in cases of objects that are of national importance and objects that will be developed in areas for which the decision on location is issued based on state planning documents. In the latter case, construction permit is issued by ministry responsible for construction (currently Ministry for Economic Development).

1.3.2.5 Maritime legislation

Law on Yachts (Official Gazette of the RM, 46/07) regulates identification of yachts, their registration, safety of navigation and protection from environmental pollution caused by yachts, sailing in and out and stay in territorial waters, internal sea waters, rivers and lakes of Montenegro, as well as rights, duties and responsibilities for renting of yachts.

Law on Sea (Official Gazette of the RM, 46/07) defines country's sovereignty on the sea, which refers to coastal sea, air above the sea, sea bottom and the space beneath it. Categories determined under this Law include internal sea waters, territorial sea, economic zone, epicontinental belt and banishment right, as well as sea use right.

Proposal of the **Law on Ports** sets up a legal framework for comprehensive reform of ports and port enterprises, their restructuring and privatisation. Regulation of their legal status (especially in relation to completing transformation of ownership structure, clear delineation of private and public functions and consequent definition of management and organisational models for ports) is a necessary step to enable adequate positioning of the ports on the market and strategic partnership with foreign investors, which are necessary to improve state of port infrastructure and equipment.

Proposal of the **Law on Maritime Navigation Safety** defines measures and procedures linked to security of maritime transport which refer to vessels, ports, seamen and other subjects in the maritime affairs. Among other issues, the proposal of the Law regulates Search and Rescue Service, piloting, and inspection supervision.

Proposal of the **Law on Maritime Navigation** defines maritime transport actors, their rights and responsibilities in the areas of free shipping and industrial shipping. Once adopted, the Law will regulate obligations and relations among actors in maritime transport, including issues such as: contracting of ships, construction and repair of ships,

buying and selling of ships, maritime insurance, loading and unloading of ships, employment of seamen, seizure of ships and usage of pledge rights.

Proposal of the **Law on Protection of Sea from Pollution from Vessels** has been drafted in response to the need to implement of Barcelona and MARPOL Conventions as well as other regulations and recommendations of International Maritime Organisation (IMO) and Mediterranean organisations within the UN system. The proposal of the Law defines control and supervision, preventive and corrective measures in case of sea pollution from ships. This proposal also envisages designation of the Bay of Boka as a specially sensitive zone in terms of pollution.

1.3.2.6 Legislation regulating other economic activities

Law on Tourism (Official Gazette of the RM, No. 31/05) determines manners and conditions under which tourism and catering activities can be performed, regulates promotion of tourism and measures for development of Montenegrin tourism offer. A set of bylaws adopted under this Law regulates performance of different services related to tourism, including services in the area of nautical tourism.

Law on Olive Growing (Official Gazette of the RM, No. 15/92, 59/92) regulates manners and conditions for growing and protection of olive trees, picking and processing of olives, and trade of edible olive oil. Olive groves, as an asset of general public interest, are subject to special protection and are used under conditions and in the ways prescribed by this Law.

1.4 Policies, strategies and plans relevant to sustainable development of the coastal area of Montenegro

As Montenegro is progressing towards European integration, a number of action plans has been developed to address requirements from the stabilisation and association process. So far, Action Plan for the Implementation of Recommendations from European Partnership and Action Plan for Institutional Capacity Building for Implementation of the Stabilisation and Association Agreement have been adopted, while preparation of National Programme for the Adoption of *Acquis Communautaire* is under way. All these documents are directly or indirectly relevant for the sustainable development in the coastal area.

On the other hand, Montenegro is lagging behind with development of a number of sectoral strategies that are of relevance for coastal area management. This first of all refers to the documents required under the UN conventions on climate change and biological diversity. Preparation of the First National Communication and Biodiversity Strategy and Action Plan has only been initiated recently (both processes are underway, with biodiversity strategy expected to be finalised in June 2008, and the National Communication somewhat later).

1.4.1 National Strategy for Sustainable Development

National Strategy for Sustainable Development (NSSD) was adopted in 2007, identifying *inter alia* general sustainable development goals and priority objectives for 24 areas related to economic development, environmental protection and natural resource management, and social affairs.

NSSD sets the overall framework for application of integrated approaches in managing natural resources (including water and coastal zone) and protecting the environment. Priority tasks identified for the sea and coastal zone are: introduction of integrated coastal zone management; and reduction of pollution of the sea and coastal zone. At the same time, NSSD was the first national document to set specific objectives regarding proclamation of protected areas in the coastal zone (protect at least 10% of the coastal zone by 2009). An action plan was developed as a constituent part of the Strategy, outlining a set of measures the implementation of which is necessary to achieve identified objectives. An overview of priority objectives for other areas relevant for coastal zone management is provided in the box below.

Box 1-2 Overview of NSSD priority objectives

<p>Biodiversity</p> <ul style="list-style-type: none"> - increase national nature protected areas to 10% of the territory and protect at least 10% of the coastal zone by 2009 - establish an efficient system for managing nature protected areas - improve the legal framework for the protection of biodiversity; strengthen human resources and develop an effective system for biodiversity monitoring 	<p>Water</p> <ul style="list-style-type: none"> - ensuring sufficient quantity of good quality drinking water - introducing integrated river basin management, with necessary legal and institutional changes and improvements in the quality control and monitoring of waters
<p>Spatial planning</p> <ul style="list-style-type: none"> - adoption of new and updating of the existing spatial plans at all levels, and integration of sustainability requirements into spatial plans and documents - protection of natural and cultural landscapes 	<p>Environmental management</p> <ul style="list-style-type: none"> - establishment of efficient legislative and institutional framework for environmental protection (particularly in respect to free access to information, implementation of EIA, SEA and IPPC laws and strengthening of other regulatory and market based instruments)
<p>Urban development</p> <ul style="list-style-type: none"> - halting illegal construction - improving the quality of life and safety in urban areas 	<p>Tourism</p> <ul style="list-style-type: none"> - diversification of tourist offer - integration of sustainability criteria in sanctioning tourism development projects

The NSSD Action Plan includes a variety of measures under the priority objectives for sea and coastal zone, including for example: 1) definition of coastal zone border according to the guidelines of Barcelona Convention, the supporting protocols and the (then) draft ICZM protocol; 2) definition of a setback line; 3) revision of the Law on Public Maritime Domain or adoption of the new Law on Coastal Zone; 4) institutional and coordination changes in the function of integrated management; 5) implementation of a continuous sea monitoring programme etc. Priority areas recognised in the NSSD for nature protection included Tivat Saltpans (Tivat municipality); Buljarica (Budva); and

Salt pans, Sasko Lake, Knete and Ada Bojana (Ulcinj). For protected areas in the sea, zones by Platamuni, Katići islands and Old Ulcinj were envisaged.

1.4.2 National Strategy for Integrated Coastal Area Management

ICAM Strategy has been prepared through a participatory process in the period from 2005 (when preliminary study/ diagnosis was prepared) to 2008, with GTZ support. The draft Strategy was put on Government's agenda for adoption in March 2008. At the time of drafting this Study, coordination arrangements for the implementation of the Strategy were still not clear, with possibilities that either Ministry of Tourism and Environment or Ministry for Economic Development take a lead in the process.

NS ICAM is developed with a reference to NSSD, Mediterranean Strategy on Sustainable Development as well as on Barcelona Convention and its protocols and the EU guiding documents for marine and coastal environment. The Strategy identifies key issues, challenges and strategic goals for integrated coastal zone management, and it comprises a set of operational objectives for each goal, with measures, activities, indicators and partnerships for implementation.

Strategic goals identified by ICAM strategy to address the main issues and challenges are presented below (in a shortened form):

Challenges	Strategic goals
1) Provide legal and institutional framework for ICZM and human resources	<ul style="list-style-type: none"> a) Harmonise existing laws with international, adopt new laws and policies b) Establish institutional mechanisms for ICZM, build human and technical capacities
2) Protection and sustainable management of natural resources	<ul style="list-style-type: none"> a) Prevent further degradation/ revitalise agricultural land b) Sustainable use of sea living resources c) Restrict (in a planned manner) use of stone and sand
3) Achieve rational organisation in space, improve infrastructure	<ul style="list-style-type: none"> a) Achieve balanced land use, in line with SD goals b) Improve transport connections with surroundings/ within region c) Ensure high level of infrastructure and communal services in settlements
4) Sustainable tourism as a driver for overall development	<ul style="list-style-type: none"> a) Development of capacities (accommodation, marinas etc) in line with SD goals b) Diversification of tourist offer c) Creation of Montenegro brand
5) Protection of natural and cultural heritage	<ul style="list-style-type: none"> a) Protection and preservation of natural heritage b) Protection, preservation and valorisation of cultural

heritage

- | | |
|--|---|
| 6) Reduction and/or elimination of pollution | a) Reduce/ prevent pollution of sea from LBS
b) Reduce/ prevent pollution of sea and air from vessels
c) Reduce/ prevent pollution of land part of the coastal area |
| 7) Protect humans and assets from natural hazards | a) Adjust planning and construction to conditions of high natural risks |
| 8) Raise awareness, complement knowledge on development potentials | a) Raise awareness and level of information, and improve knowledge on coastal area; improve public participation in decision making |
| 9) Ensure realisation of strategic – sustainable development choices | a) Steer investments towards implementation of strategic goals |

1.4.3 Spatial plans

Spatial Plan of the Republic of Montenegro until 2020 (National Spatial Plan or NSP) was adopted by the Montenegrin Parliament in March 2008, after several years of preparation.

In setting general principles and goals of spatial development, NSP refers to the concept of “ecological state” and NSSD, and emphasises some of the issues particularly relevant for the management of coastal area. Thus one of the general objectives of the Plan is rational use of natural resources (through *inter alia* rational use of space for urbanization and control and limitation of intensive expansion of urban areas; sustainable development of coastal area with application of principles of sustainable development and instruments of integrated coastal area management; etc.), while one of the guiding principles endorsed by the Plan is curtailing of ‘widespread unplanned construction and misuse of land’ . .

The Plan is somewhat less clear when it comes to integration of principles/ translation of general goals into specific planning solutions, in particular regarding the resolution of conflicts identified between the different land uses (existing and planned). The main conflicts identified for the coast are between the development/ construction of new tourist and urban zones, existing concentration of different functions in the built up areas, plans for development of transport infrastructure (including new road infrastructure, construction of bridge over the Bay of Boka, and expansion of port – in particular the port of Bar – facilities), and development of industrial zones on one side, and protection of environment and natural and cultural landscapes on the other. Even though it recognizes importance of preserving biodiversity and undeveloped parts of the coast, the NSP guidelines often set basis for development projects at the same locations that have been highlighted as the ones of particular conservation interest. The NSP recognizes the

need for further research into the conservation values of certain areas and application of instruments such as environmental assessments and carrying capacity assessments in determining the final land uses. Strategic environmental assessment was conducted for the NSP as a pilot project, but the Plan was developed before the new SEA law came into force so the SEA report was not a subject to full prescribed SEA procedure.

The NSP determinations and guidelines which are particularly relevant for coastal zone management include: balanced regional development and harmonization of rural – urban relations; polycentric development with decentralization of functions; integration of Montenegro as a Mediterranean and south-east European country into the European space; regional differentiation of structure; integration of space; rational and efficient spatial development inline with potentials and limitations; rational use of natural resources and of land in particular, with preservation of its productive potential; control and limitation of intensive spread of urban areas; preservation of coastal spaces; development of transport infrastructure (highway Belgrade – South Adriatic, speedway Ulcinj – Herceg Novi, Belgrade – Bar railroad reconstruction, regulation of Bojana riverbed and opening of a waterway, establishment of coastal navigation).

More specifically, Bar and Budva are planned to be regional centres. The third regional centre will be comprised from the Bay of Boka towns and settlements, while Tivat and Ulcinj are seen as municipal centres. Envisaged development zones are Boka Kotorska, Budva – Petrovac coast, and Bar – Ulcinj coast. Cross-border development zones are also envisaged, including Ulcinj – Skadar (Albania) and Boka – Dubrovnik (Croatia). Strategic industrial areas are port-industrial complex in Bar with associated free economic zone and industrial and free zone in Grbaljsko field (Kotor municipality). Fruits and vegetables production is planned for Ulcinj – Bar (Vladimirsko and Ulcinjsko field) and Kotor – Tivat (Grbaljsko, Mrcevo and Tivatsko fields). Construction of golf courses is also envisaged (even though locations have not been specified). Former military complexes are planned to be turned into tourism zones, and the total planned capacity in hotel beds at the coast by the year 2020 is planned at 100,000 (which would roughly mean tripling the current hotel capacities). Two large marinas are planned, as well as four standard and three special ones.

An excerpt from the synthesis map of the NSP, showing existing and planned spatial development in the coastal region, is provided in Annex 8 (complete map with better visibility available from the Plan itself).

Spatial Plan of the Special Purpose Area Public Maritime Domain (SP *Morsko dobro*) was adopted in 2007, also after a long preparatory process. The Plan provides guidelines for development, use and protection of the zone designated as public maritime domain taking into account specificities and limitations of the area, general development guidelines for Montenegro and international standards for managing coastal areas. The Plan aims to provide for rational use of natural and manmade resources in the zone of public maritime domain and for their long term protection and sustainable development. For the purpose of the SP *Morsko dobro*, the whole public maritime domain has been divided in 68 sectors, and for each of the sectors the Plan provides: a) overview of the basic land uses/ planned activities with guidelines and remarks; b) guidelines for types of beaches; c) protection guidelines; and d) guidelines for implementation of the Plan. These

are illustrated on a set of 48 maps (scale 1:10,000) which are a constituent part of the Plan.

SP *Morsko dobro* (and spatial plans in general) provide guidelines/ determine different types of land uses, while detailed elaboration for the zones for construction and development is provided through urban plans and studies of locations. Within the area designated as public maritime domain (covered by the SP *Morsko dobro*) 17 **studies of locations** are currently being developed, elaborating detailed urban solutions and conditions for construction on some of the attractive and less developed sites at the coast (or the ones where there has been a change in land use – e.g. transformation of former military areas).

1.4.4 Documents prepared in the framework of SAP BIO and SAP MED

Within the scope of the Strategic Action Plan for Biodiversity in the Mediterranean Region (SAP BIO), **National Report on Status, Problems and Preservation of Marine and Coastal Biodiversity in Montenegro** was prepared in 2004. The Report was developed at the level of preliminary strategy, with an assessment of the state of biodiversity and identification of problems. Based on a prioritisation of problems, 22 priority actions have been formulated and action plans were developed for three of them, namely for:

- Preparation of inventories and mapping of ecologically sensitive zones (*Posedonia oceanica* and halophyte vegetation);
- Revision of status of the existing protected areas and nomination of new ones; and
- Preservation of Skadar pelican.

Update of the Report will be carried out in 2008, and an effort will be made to include possible impacts of changing climate on biodiversity in the study area.

In 2005, **National Action Plan for Reduction of Pollution from Land Based Sources (NAP)**¹¹ was prepared in the scope of the Strategic Action Programme to Address Pollution from Land-Based Activities in the Mediterranean Region (SAP MED). The Report contains pertinent analyses and a list of priority measures for reducing pollutants emissions by sector and by type of pollutant. It also contains an analysis of economic measures and financing instruments, as well as the ways in which the implementation of measures should be supported (participation of private sector, public etc.). In the diagnostics part, pollution hot-spots and sensitive areas in the coastal sea were identified (as shown in the Figure 2-3).

¹¹ Basic Emission Balance for Montenegrin Coast and National Diagnostic Analysis were also prepared in the process of developing NAP.

1.4.5 Sectoral strategies and action plans

In the period 2004 – 2006, several master plans were prepared under the coordination of the former Ministry of Environmental Protection and Physical Planning (now Ministry of Tourism and Environmental Protection), outlining priorities and the ways/ pace of addressing them for water supply, wastewater disposal and waste management sectors. **Master Plan for Water Supply for Coastal Region of Montenegro and Cetinje** elaborates existing conditions in water supply in the studied area, provides forecast of needs and proposes possible solutions¹² for water supply. The Plan covers period 2006 – 2028 (with three phases over this period). The time horizon for **Master Plan for Collection and Treatment of Wastewater of the Coastal Region and Cetinje** is also 2028, and the planned interventions are phased over three periods. The Plan provides an overview of the existing conditions of sewage systems, goals for long-term development and phased investment plan. **Strategic Master Plan for Waste Management on the Republic Level** sets the main goals for improving waste management and reducing environmental impact of waste, including an increase in the collected amounts of waste (increased share of population covered by the waste collection system), reduction of quantities of disposed waste, introduction of recycling and similar. The Waste Master Plan refers to the year 2025 and also includes three implementation phases.

Master Plan – Strategy for the Development of Tourism in Montenegro until 2020 was adopted in 2002, together with two more detailed regional tourism master plans for Velika plaza (Ulcinj) and Boka Kotorska. The Master Plan is based on the assumption that Montenegro will host around 20 million overnight stays in 2020, which would make an increase of four times compared to 2005. Out of the total number of projected overnight stays, around 75% are expected to be on the coast. The Plan also recognises a need to protect sensitive environmental areas and a significance of applying density limits (e.g. a requirement of 100 m² of open green space per room) for developing higher quality tourism offer. The Plan is currently being revised. The revision is expected to incorporate sustainability principles outlined in the NSSD and other relevant strategies and plans. It is also expected that the revised Master Plan would recognise a 100 m no-construction area from the seashore.

The 2005 programme **Nautical Tourism in Montenegro** provides guidelines for the development of this type of tourism based on the following criteria: providing for sustainable development and preservation of environmental equilibrium, avoiding the use beaches and other important tourism resources for nautical activities, and economic feasibility. The programme envisages development of different types of marinas along the coast, including two major service marinas in Bar and Tivat, and 7 other marinas of different size and character.

Montenegrin Agriculture and the EU – Food Production and Rural Development Strategy (2006) comprises three documents:

¹² The Master Plan identified three options for resolving water supply problems at Montenegrin coast; the concept of regional water supply system has been chosen as the preferred option and respective interventions are now in the process of implementation.

1. The current agricultural situation and development prospects;
2. Platform, objectives and pillars of the reform; and
3. Concept of agricultural policy measures and budgetary plan for 2007-2013.

The second part – Platform, objectives and pillars of the reform - introduces new guidelines for Montenegro's agriculture and rural areas. Based on the sector analysis from the first document, as well as international framework and requirements, the Platform proposes a concept of sustainable agriculture, with respect to multifunctional role of agriculture. The main objectives of the agricultural policy include: a) management of resources in a long-term sustainable manner; b) ensuring stable and acceptable supply of food; c) ensuring an adequate standard of living for rural population and comprehensive rural development; and d) increase in competitiveness of food producers.

Similarly to Agriculture Strategy, **Fishery Development Strategy of Montenegro** (2006) was developed with the EU framework in mind, and it includes considerations for building capacities for the implementation of the EU Common Fishery Policy (CFP). The Strategy promotes development of sustainable fishery sector through improvements in the legal framework, improving the system of resource monitoring and through gradual fulfilment of the EU and international standards in controlling the fishing.

Draft Transport Strategy defines strategic goals and a series of action plans for the achievement of these goals. Strategic orientations for transport development are: improving transport safety, increasing quality of transport services, integration of Montenegrin transport area into Trans-European Network – Transport, development of transport infrastructure in line with the needs of economic development, protecting environment in designing and operating transport system, and equitable setting of transport prices.

Initial activities have been undertaken for the preparation of **national plan** for preparedness and response to marine pollution in emergency cases. The plan will be finalised following the adoption of the Law on Protection of Sea from Pollution from Vessels, and will specify measures for prevention of pollution and mitigation of damages in case of accidents, responsibilities and procedures. It will be integrated on the regional level through the sub-regional plan for South Adriatic and Ionian Sea.

Management Plan for the UNESCO's World Natural and Cultural Heritage Site Kotor – Risan Bay has been drafted in 2007. The Plan identifies issues relevant for the area together with threats and challenges, and proposes policies, measures and guidelines aimed to protect unique qualities of the area. The main goals are to provide for effective management and protection of World Heritage site through integrated and proactive approaches. The role of the Plan is also to promote and interpret the values of the site and to provide that local communities benefit from them.

1.4.6 Local plans

Following the adoption of the 2005 spatial planning law, and an evident shortage of spatial planning documents to address increasing pressures from construction, coastal

municipalities have initiated comprehensive processes of adopting new or revising and updating existing spatial, detailed urban plans and other types of local planning documents. In Budva alone, around 70 planning documents have been developed/ updated or are in the process of development/ updating in the last year. Similar (but somewhat less intensive) situation is found in other municipalities, where a large number of plans is being developed, including Municipal Spatial Plans (MSPs), General Urban Plans (GUPs), Detailed Urban Plans (DUPs), local studies of location, and urban projects.

Table 1-2 provides an overview of the situation with the development of mandatory (under the Law on Spatial Planning and Development) local spatial plans.

Table 1-2: Overview of the status of development of mandatory spatial planning documents on the local level (as of March 2008)

Municipality	Municipal Spatial Plan (MSP)	General Urban Plan (GUP)
Herceg Novi	Draft in final stages, adoption expected in second half 2008	GUP from 1989 in force; new GUP planned, but no concrete steps yet
Kotor	Process initiated March 2008	Process initiated March 2008
Tivat	Under development, expected finalisation end 2008	Under development, expected finalisation end 2008
Budva	Adopted 2007	Adopted 2007
Bar	Process initiated*, draft under development	Adopted 2008
Ulcinj	MSP from 1999 in force	Proposal of partial revision of the existing GUP finalised**, adoption pending

Notes: * Decision on development of Municipal Spatial Plan made back in 2000, but the process slowed down due to lack of adequate baseline data and financial resources
 ** The existing GUP is from 1985; ongoing revision was made for some 8% of the territory covered by the original plan (the most attractive locations)

Besides the spatial/ urban plans that are relevant for coastal zone management, worth of mentioning is that several coastal municipalities have prepared (or initiated preparation of) Local Environmental Action Plans (LEAPs). Herceg Novi and Kotor have developed their LEAPs, while Budva LEAP has been completed and is pending adoption. In Tivat, LEAP preparation started some time ago, but the process then halted and the document has not been completed yet. Herceg Novi has also prepared Local Agenda 21, and is moving on with the implementation.

1.5 Initiatives, programmes and projects in Montenegrin coastal area

A variety of initiatives, programmes and projects that are linked to environment and sustainable development has been implemented or is ongoing/ planned in the Montenegrin coastal area. A number of them is of cross-border/ regional character, while others are more focused on local issues. Programmes and projects implemented in the national and local contexts are to a large degree supported by international donors/ financial institutions. They vary from large infrastructural ones to community based

initiatives and smaller-scale scientific and civil sector projects. An overview of the different initiatives, plans and programmes is provided in Annex 6 in a matrix form, and the most relevant projects are described below.

On a regional scale, Montenegro participates in the Adriatic-Ionian Initiative (AII), a political framework currently operating within four tables. Within this framework, Montenegro and Albania take part in the ADRICOSM-STAR project (Montenegro coastal Area and Bojana river catchment basin) supported by the Italian Ministry for Environment and Territory. Its goals are continuous monitoring and forecast of the surface and ground water cycle, and elaboration of scenarios for different cases of river and marine area utilisation. This is a continuation of the ADRICOSM project (Adriatic sea integrated Coastal areaS and river basin management system) launched in 2001. Montenegro is also a member of the Joint Expert Group (with Albania, Bosnia and Herzegovina, Croatia, Italy, and Slovenia) that is working on developing a proposal for designating the Adriatic Sea as a Particularly Sensitive Sea Area (PSSA). Furthermore, Montenegro is expected to join the work of Trilateral Commission for the Adriatic upon forthcoming expansion of this body.

Within Adriatic Euroregion¹³ framework, South Adriatic Eurodistrict initiative has been established based on a Convention signed by a number of municipalities from Albania (2 municipalities), Italy (7) and Montenegro (6). Signatories of the Convention have undertaken to develop co-operation between the communities and authorities in their respective areas in order to achieve a set of priority objectives, including the following one:

- the Eurodistrict aims to become a pilot region within the Adriatic basin for laying the foundations of a common European area based on sustainable development, social cohesion and cultural dialogue.

All Montenegrin coastal municipalities are taking part in this initiative; twinning arrangements with a number of Italian communes have also been made. The Eurodistrict cooperation and its institutions (to be established) are seen as an instrument that could, among other things, facilitate access to the EU regional funds.

On the national/ local level, a number of large scale initiatives/ programmes is being implemented with support of different donors and IFIs, addressing issues instrumental to coastal zone management. These include integrated management and urban planning in coastal towns (supported by GTZ), tourism development (DEG - German Investment and Development Agency), greenfield development (EBRD), coastal wastewater (USAID, KfW, WB), coastal water utilities (KfW), coastal water supply (WB, EBRD, EIB), waste management (WB, IRD, Austrian Development Cooperation) and others.

¹³ The Adriatic Euroregion was initiated based on the European Outline Convention on Transfrontier Co-operation between Territorial Communities or Authorities, signed in Madrid in 1980 by the member states of the Council of Europe. It is a part of what is described as a "new generation of Euroregions", along with the Black Sea and the Baltic Sea Euroregions.

The World Bank assistance includes MESTAP – support for construction of landfills and waste management improvements for coastal municipalities¹⁴, and a more recent Montenegro Sustainable Development Project (MSTD). With a total funding of around US\$10 million, MSTD comprises, among others, the following components:

- Integrated Coastal Zone Management Policy and Institutional Capacity Building Component¹⁵, financing improvements in land-use planning and nature protection to guard against uncontrolled construction and development; and
- Coastal Environmental Infrastructure Component, financing investments for the continental and southern part of the Regional Water Supply Scheme¹⁶ and wastewater collection improvements in Ulcinj municipality.

Construction of northern branch of the coastal water supply system (water supply from Lake Skadar to municipalities Budva, Tivat, Kotor and Herceg Novi) and rehabilitation of existing water supply has received a support from EBRD (€15 million loan). Total project (Regional Water Supply Scheme) budget is estimated at around €50 million (national financing will be around 24 million from Government, Regional Water Supply Utility and local governments).

Montenegro Coastal Development and Environment Activity was funded by USAID (total budget US\$12 million), and a number of projects on water and wastewater improvements were implemented from 2004 to 2006 under this programme. Municipalities that mainly benefited from this assistance were Budva, Kotor, Cetinje and Bar. Other sources of funding for water/ wastewater interventions include EIB and KfW. Capacity strengthening of the local public utility companies (water, wastewater, waste) is ongoing.

In the area of waste management, EAR supported strengthening of waste utilities' technical capacities (waste collection vehicles, containers) through a CARDS project of €1.2 million (the project covered almost all municipalities in Montenegro). In Herceg Novi, project of separate collection of waste has been initiated in 2006, in cooperation with IRD and with support from Norwegian utility company (project budget of € 120,000). Separate collection has been also initiated in Kotor and Budva municipalities, and a recycling station has been put in operation in Kotor municipality.

¹⁴ Construction of the first sanitary landfill in Montenegro (Lovanja – temporary landfill that served three coastal municipalities - Budva, Kotor, Tivat) has been completed with the assistance from this project (Montenegro Environmentally Sensitive Tourism Areas Project). Construction of landfill for Ulcinj and Bar municipalities, which was originally planned to be funded from this project, was delayed due to location selection problems. An agreement on location was reached meanwhile, and construction is expected in the near future.

¹⁵ Strengthening of capacities of the Ministry of Tourism and Environment, Regional Water Supply Company (PEW), Public Enterprise *Morsko dobro* and municipality of Ulcinj (through assistance in urban planning, protected area establishment/ management, wastewater collection) is planned.

¹⁶ Southern branch of the Regional Water Supply Scheme will provide water from Lake Skadar to the municipality of Bar. Extension of water supply southern branch to Ulcinj and the tourist areas of Valdanos and Velika plaza is expected to be done under the subsequent project MSTDP 2.

In carrying out activities for waste management, water supply and wastewater improvements envisaged under respective master plans, local utilities are playing an important role and are, through local governments that own/ manage them, providing co-financing. Significant support is also being provided through national institutions. Nevertheless, national capacities to fund (and develop/ implement) these type of projects still needs to be developed.

Regarding the protection of pollution from maritime activities, some progress has been made in recent years through a public-private partnership project that improved technical capacities in the area of port reception facilities¹⁷.

Regular annual monitoring programmes are performed in Montenegro (including coastal area) for different environmental media (water, air, soil) and biodiversity. These programmes are designed and funded by government institutions (mainly by the Ministry of Tourism and Environment (MTE), and executed by specialised institutions such as Hydro-meteorological Institute (HMI), Centre for Eco-toxicological Research (CER), Nature Protection Institute (NPI) and Marine Biology Institute (MBI). In addition, seasonal monitoring programme of bathing (sea) water quality is regularly conducted. The scope of these activities, however, is not sufficient to provide comprehensive data on the state of environment and trends in the coastal area.

From 1998 – 2003, HMI (nutrients) and CER (toxicants) have implemented water monitoring programmes for surface, sea and underground water quality on 25 monitoring stations on the coast for 67 parameters. Since 2003, the programme continued (implemented by HMI) for a limited number of parameters on 16 locations. In addition, some *ad hoc* investigations of water quality were carried out for the needs of different projects, studies and master plans. In the same period (1998 – 2003) CER carried out water quality monitoring programme for ports (Zelenika, Risan, Kotor, Tivat, Bar, Herceg Novi and Lipci port for oil/ oil derivatives reservoirs in Boka) and shipyard Bijela. Monitoring was done for 67 chemical, physical-chemical, microbiological and toxicological parameters, four times a year. After 2003, CER continued monitoring only for micro-biological parameters. MBI from Kotor is also involved in some marine water monitoring activities, including occasional surveys for a number of organic pollutants and biological components (seaweeds, benthic biocenosis, micro biota, bio-toxins, etc.) as well as some specific water phenomena caused by pollution (e.g. eutrophication of coastal seawaters). There is no systematic monitoring of wastewater and pollution loads (only sporadic investigations carried out for different studies and projects).

Nature Protection Institute performs biodiversity monitoring and keeps an inventory of protected areas. Marine Biology Institute is carrying out monitoring and research

¹⁷ Hemosan company has over the course of the past few years invested into various equipment and facilities (vessels to access ships, reservoirs, separators, pumps, skimmers, floating barriers etc) and has set up two stations – in the Port of Bar and Shipyard Bijela – for receiving and managing waste/ wastewater from ships. In 2007, for example, the company has accepted a total of around 3,400 m³ of bilge water, 700 m³ of sludge, 330 m³ of waste oil, 1,000 m³ of slop and close to 2,000 m³ of sewage water from ships in different ports. Hemosan is contracted to perform these services, as well as to assist in case of accidents, by the Maritime Safety Administration.

programmes on the biological resources of the shelf and continental slope of the Montenegrin coast.

Air quality monitoring is performed by CER through a network of permanent stations (including five such stations in the coastal towns of Herceg Novi, Kotor, Tivat, Budva and Ulcinj) and one mobile station. Monitoring of toxic substances in soils (also performed by CER) covers heavy metals, pesticides, PCBs etc. Measurements are done on 92 locations (in the whole of Montenegro) near landfills and other potential pollution sources.

Monitoring institutions have already participated in some international projects and monitoring programmes relevant for coastal area such as (already mentioned) ADRICOSM STAR, Programme for the Assessment and Control of Pollution in the Mediterranean Region (MED POL) and others. In cooperation with MED POL, MTE has initiated activities to gradually expand monitoring programme for the sea/ coastal area to bring it inline with MED POL (compliance monitoring for bathing and aquaculture waters, status and trends monitoring, pollution loads, bio monitoring, and eutrophication). In 2008, MTE has set aside € 80,000 and has agreed, in cooperation with MED POL, on an expanded programme that will be carried out on 6– 7 stations and for 6 sub-programmes. Monitoring will be carried out by relevant national institutions (CER, HMI, MBI). In the future, it will be necessary to work further on aligning the national monitoring system with MED POL methodology and to provide for necessary capacities. In the course of the EU integration processes, it will be necessary to progressively harmonise the monitoring programme with the requirements and standards of the EEA.

Other activities within cooperation with MAP and its regional centres are related to raising capacities in the area of prevention, preparedness and response in cases of sea pollution from vessels (cooperation with REMPEC – Regional Marine Pollution Emergency Response Centre), biodiversity protection (for information on cooperation with SPA/ RAC see below) and integrated management. As a pilot project (PlanCoast) supported by PAP/ RAC, sea-use plan was prepared for Boka Kotorska. Further cooperation with REMPEC is planned on training, contingency plan development, technical capacities, and improvements of legal framework. As already mentioned, initial steps were made related to both operational and accidental pollution prevention through national efforts (public-private partnership between Hemosan Company and Maritime Safety Administration). National Cleaner Production Centre is expected to be established and extended cooperation with CP/ RAC is planned. Cooperation with Blue Plan on SD Indicators and INFO/ RAC on awareness raising is also foreseen.

Montenegro is also one of the partner countries for the GEF Mediterranean Large Marine Ecosystems (LME) initiative. Regional component of LME is expected to focus on ICZM projects, reduction of pollution from land based sources and biodiversity protection.

A large number of initiatives relevant for nature/ biodiversity protection at the coastal zone is ongoing. The MSDP of the World Bank will support establishment of protected area in Bojana River Delta (area subject to this project is shown in Figure 2-7). MoU has been signed with SPA/ RAC to carry out an assessment (feasibility study) of the proposals for Marine Protected Areas (MPAs) for zones around Platamuni, Katići and

Old Ulcinj islands (see Figure 2-1 for their locations). SPA/ RAC will also support revision of the national SAP BIO report. Through cooperation between national and local institutions, Tivat's Saltpans (Solila) have been declared a protected area – special (botanical and ornithological) reserve – in 2007.

Besides the above mentioned, there is a number of activities with wider (then coastal zone) scope that are also relevant for coastal and marine biodiversity protection. Such activities include preparation of the national Biodiversity Strategy and Action Plan, supported by GEF/ UNDP, and another GEF/ UDNP project (now in preparation phase) aimed at expanding and rationalizing the protected areas (PA) system to ensure better habitat representation, and strengthening capacity of PA institutions (the plan is to include MPAs in the project)

Figure 1-2: UNDP's GIS project outputs – digital terrain model for the Bay of Boka



Source: UNDP website

Through Emerald project (initiated in 2005), a large number of Areas of Special Conservation Interest at the European level (ASCIs) was identified in Montenegro. Data on Emerald network areas were entered into database maintained by the Nature Protection Institute. Lake Skadar Integrated Eco-system Management Project is in the final preparation phase, to be funded by the GEF/ WB (joint project for Albania and Montenegro). Two WWF regional initiatives – BigWin and Dinaric Eco-region are being prepared/ carried out. Ministry of Tourism and Environment has submitted proposal for institutional capacity building for Natura 2000 for IPA programme for 2009.

Project on application of GIS to environmental information is ongoing, supported by UNDP/ the Ministry of Foreign Affairs of Finland. The office established under this project, for example, worked on GIS and has digital terrain model of the coastal region.

With Japanese support, Real Estate Administration is working on development of digital maps for the whole territory of Montenegro. The budget of the project is around € 2 million. The project should be finalised in 2009, and the maps should be widely available.

Water Administration is involved in the projects of clean up of Port Milena channel in Ulcinj municipality (in cooperation with Marine Biology Institute) and removal of deposits from Bojana riverbed.

Public Enterprise *Morsko dobro* is carrying out regular activities related to management of beaches and public maritime domain zone. In cooperation with other actors, it is leading annual campaigns for Blue Flag awards. Morsko dobro is also preparing different programmes such as a programme for expansion of beaches and swimming/ sunbathing areas.

In the fishery sector, technical support project funded by EAR (around € 1 million budget) is being implemented to, among other things, improve legislation and strengthen institutions to ensure sustainable management of fisheries and enable harmonisation with EU standards. The key national partners in this project are Ministry of Agriculture, Forestry and Water Resources, Marine Biology Institute, food safety and other relevant laboratories and others. Ongoing and forthcoming activities include drafting of a new law on sea fishing, testing and implementation of vessels register, catch recording system, preparation of fisheries management plan etc.

Several NGOs are active in the coastal area. Kotor based NGO *Expeditio* was involved in different projects related to environmental policy, planning, protection of cultural and natural heritage, energy efficiency in buildings and enhancing cooperation between coastal municipalities¹⁸. *Evropski dom* from Tivat has implemented several activities related to awareness raising, waste, and protection of cultural and natural heritage, while Centre for Protection of Birds from Podgorica took part in research projects and work on protected areas establishment. NGOs *Kalimera* and *Bojana* from Ulcinj have implemented several projects with local clean-up activities, projects on environmental awareness raising and sustainable fisheries, and have tried to make an impact on local development and land-use policies. Activities of the NGO *Zeleni* from Podgorica that are related to coastal zone included local clean-up and afforestation activities, training and awareness raising; this NGO is participating in MIO-ECSDE (Mediterranean Information Office for Environment, Culture and Sustainable Development) network.

¹⁸ In 2007, *Expeditio* has initiated a project supported by the Dutch Embassy from Belgrade, the basic aim of which is to develop different mechanisms and forms of cooperation in Boka Kotorska area. The frame for 'testing' this cooperation is cultural tourism around the Bay of Boka.

1.6 Institutional set up for coastal zone management

1.6.1 National level

National institutional framework for coastal zone management is a complex one, which especially highlights the need for effective coordination mechanisms as a prerequisite for effective outcomes and sustainable development in the area that is seen as one of the key competitive advantages for the country's development yet has limited natural resources and fragile ecosystems. Secondly, capacities of the existing institutions are of vital importance for implementation of new policies, legislation and strategies for integrated management approaches.

In the existing institutional set up, part of coordinating and policy integration responsibilities is vested with the National Council for Sustainable Development. The most relevant ministries for the coastal zone management are Ministry of Tourism and Environment, Ministry of Economic Development, Ministry of Transport, Maritime Affairs and Telecommunications, and Ministry of Agriculture, Forestry and Water Resources. Other state administration bodies with important competences for coastal area management include Ministry of Culture, Sports and Media (through the competences for protection and management of natural amenities and cultural monuments) and subordinated institutions¹⁹, Real Estate Administration, Maritime Safety Administration, Water Administration, Statistical Institute Monstat, Hydro-meteorological Institute etc. In addition, there is a number of public enterprises, scientific institutions and other organisations on the national level that are of relevance for coastal area. The ones that are seen as having the key roles for CAMP Montenegro are presented below.

National Council for Sustainable Development was founded in 2002. Its role is to oversee implementation of the National Strategy for Sustainable Development (NSSD), as well as to review strategic development documents, investment programmes and similar, in order to provide for integration of sustainable development approaches into sectoral policies. Office for Sustainable Development was opened in 2005 to provide operational support to the Council.

Ministry of Tourism and Environment (MTE)²⁰ has three sectors – Sector for Environmental Protection, Sector for Tourism and Sector for Legislation and Inspection. The main responsibilities of the environment sector are to develop national strategies, policies, laws and standards for environmental protection. Currently, around 30 staff²¹ works on a set of environment related tasks, including:

- Environmental protection;
- Sustainable use of natural resources;

¹⁹ Republican and Regional Institutes for the Protection of Cultural Monuments, Nature Protection Institute and Centre for Archaeological Research.

²⁰ MTE is MAP Focal Point.

²¹ This number includes staff of the Sector for Environmental Protection, environmental inspectors and staff working on legislation; the number has been increased substantially in 2007 when around 10 new staff was employed.

- Nature conservation, national parks, protected areas and biodiversity;
- Protection of air, climate and ozone layer;
- Protection from harmful effects of ionizing and non-ionizing radiation;
- Protection of soil quality;
- EIA, SEA and IPPC;
- Monitoring of the state of environment and polluters register;
- Environmental economic instruments;
- Waste management;
- Export, import, transit and disposal of hazardous substances, including radioactive substances;
- Coordination of wastewater municipal infrastructure systems;
- Coordination of Regional Water Supply Scheme; and
- International cooperation on environment.

The Ministry performs administrative supervision over the work of several public institutions including HMI, CER and Public Enterprise National Parks of Montenegro²².

Sector for Tourism (of the MTE) is responsible for policy framework for tourism development. Together with the National Tourist Organisation, it is responsible for implementation of tourism development strategy, promotion of tourism and similar activities.

Ministry of Economic Development (MED), with competences in the areas of economic development, industry, energy, and spatial planning and construction, is one of the key actors for integrated coastal zone management. At the same time, it performs supervision over the Public Enterprise *Morsko dobro*.

Ministry of Transport, Maritime Affairs and Telecommunications (MTMAT) has a wide range of competences related to transport system. Responsibilities particularly relevant for coastal zone include planning and development of road infrastructure, maritime transport, and prevention, readiness and response in case of accidental pollution at sea. Parts of the MTMAT are Maritime Safety Administration²³ (operational body, acts in case of pollution), and Harbour Master's Offices in Kotor and Bar (inspection, supervision).

Areas of responsibility of **Ministry of Agriculture, Forestry and Water Resources (MAFWR)** are forestry, agriculture and fishery, and water protection and use. MAFWR is in charge of preparation of laws, policies and plans for the management of water resources, development and maintenance of water information systems and other related tasks. The Ministry is conducting its work in water management area in cooperation with/through Water Administration (described below).

²² Responsible for managing four national parks in Montenegro, with current staff of 118 (some 60% of them being guards).

²³ REMPEC Focal Point.

Under the 1992 Law on Public Maritime Domain, a specialised agency – **Public Enterprise (PE) *Morsko dobro*** – was established. PE *Morsko dobro* is governed by a Board of Directors appointed by the Government, and is fully funded from the revenues collected based on its mandate – public maritime domain management. Specific tasks of *Morsko dobro* are to:

- protect the public maritime domain (coastal and marine resources) and enhance its use;
- manage the public maritime domain;
- lease/ handle contracts for the use of public maritime domain; and
- construct and maintain necessary infrastructure.

Morsko Dobro has 26 permanent staff members and an annual budget of approximately € 6 million for the agency's operational costs, management of beach areas, preparation of plans, programmes and studies, support to planning activities (e.g. for wastewater treatment), monitoring water quality, financing of coastal infrastructure and similar activities. PE does not have inspection/ enforcement function (but is relying on the relevant national inspectorates), which sometimes leads to complicated and time-consuming procedures and unsatisfactory level of law enforcement.

Marine Biology Institute (MBI) operates as a research institute within the University of Montenegro. Main areas of work include: researching marine animals and plants; researching and examining chemistry of sea water; providing opinions on impacts of various activities on animals and plants that live in the sea; and occasional monitoring of the sea water quality. The Institute has a total of 34 staff, half of which are scientists/researchers. MBI has taken part in various international projects such as MAMA²⁴, ADRICOSM and ADRICOSM STAR, and similar.

Competencies of the **Water Administration** *inter alia* include: a) protection from harmful impacts of water and protection of water from pollution; use of water and materials from watercourses; preparation of relevant plans and programmes, and drafting of water legislation; calculation of water management fees and charges, etc. Water Administration is currently mainly working on preparation of bylaws under the 2007 Water Law, and is making steps towards preparation of integrated river basin management plans. The idea is to start with a pilot project (for a river in northern Montenegro) to build capacities and be able to replicate the process for other rivers and/or the two watersheds in Montenegro (Adriatic and Black Sea watersheds). It is not expected that river basin management plan for coastal zone will be initiated during this or next year.

Public Institution **Centre for Eco-toxicological Research (CER)** has high expertise in analysing pollutants in different media. It is well equipped and is one of the key implementers of the environmental monitoring programmes²⁵. CER has accreditations for several analyses and participates on a regular basis in inter-calibrations with other European laboratories. Besides regular monitoring programmes, activities of the Centre

²⁴ Mediterranean network to Assess and upgrade Monitoring and forecasting Activity in the region.

²⁵ For air, soil and ionizing radiation; since 2003, HMI is the lead institution for water monitoring.

in the coastal area include analyses performed in cases of accidents, various *ad hoc* surveys and research, and participation in international projects.

Hydro-meteorological Institute (HMI) is a state administration body tasked with monitoring and forecasting in the area of meteorology, hydrology, air, water and soil quality, and as such, it is the competent authority for monitoring the quality of sea water. The Institute has relevant expertise in environmental monitoring and is one (together with CER) one of the main monitoring institutions, however technical capacities of HMI would need to be increased in order for the Institute to be able to carry out a comprehensive monitoring (e.g. HMI needs more equipment for heavy metals and organic chemicals and training in using it). The Institute has also taken part in a number of international projects (research, monitoring etc.). Since recently, HMI has incorporated former Hydrographical Institute capacities.

Public Enterprise Regional Water Supply for Montenegrin Coast and Cetinje Municipality (PEW-MC) has been established with the aim to contribute to the activities on construction of the regional water supply system and facilities for wastewater treatment and disposal of solid waste in the coastal region. PEW-MC is also working on the establishment of an IT system for the areas that fall within its responsibilities, statistical and analytical data processing, development of project documentation and similar activities. It is acting as an implementing agency for the infrastructure projects funded by the WB and EBRD. PEW-MC has 19 employees.

Nature Protection Institute (NPI) has a mandate to preserve protected objects of nature (which include natural attractions or monuments of nature, nature reserves and protected animal and plant species), propose protection measures, conduct research and prepare plans and programmes for nature (protected objects of nature) protection. NPI has 25 staff members, and is a lead institution for the biodiversity monitoring programme that was initiated in 2001. At this stage, the monitoring programme only encompasses part of the protected species and a few general indicator species (annual budget for the programme being around € 12,000) and does not have a special focus on the coastal zone biodiversity.

Regional Institute for Protection of Cultural Monuments (based in Kotor, responsible for Herceg Novi, Kotor and Tivat municipalities) collects and keeps data on immovable cultural heritage, and maintains register of cultural monuments with appropriate dossiers and information. As previously mentioned, it is responsible for cultural heritage protection (together with Republican Institute and other institutions).

Environmental Protection Agency (EPA) of Montenegro is in the process of establishment. Once it becomes operational, it is planned that its responsibilities would include: a) environmental permitting; b) inspection and law enforcement for activities regulated under environmental legislation; c) collecting and processing environmental monitoring data delivered by authorized institutions, establishing environmental databases, and organizing dissemination of information and public access to it; and d) reporting on the state of the environment in the country as well as towards international organisations.

Supervisory and inspection tasks are shared between national and local levels. **National inspection bodies** (and their competences) that are of particular relevance for coastal zone management are:

- Inspection for urban development (controls implementation of spatial plans);
- Construction inspection (controls construction of objects that are of public interest or objects with surface exceeding 1000 m²);
- Water resources inspection (responsible for works on water assets, in watercourses and for protection of waters from pollution from land based sources);
- Tourism inspection (controls activities on beaches as well as tourism and catering objects);
- Harbour Master's Offices and their navigation safety inspections (control safety of navigation and pollution of sea from ships);
- Environmental inspection (controls activities in protected areas and pollution emissions);
- Sanitary inspection (controls sanitary issues and noise);
- Fishery inspection (controls fishing and aquaculture);
- Navigation units of the Ministry of Internal Affairs (control maritime safety).

As the public maritime domain is defined as a special purpose under the competence national institutions, it is the national inspectorates that are responsible for law enforcement in this area.

1.6.2 Local level

Local governments competences pertinent to integrated coastal zone management are performed through a variety of bodies, including development secretariats (and in some municipalities – development agencies), secretariats for planning, urban development and construction, secretariats for communal affairs and public utility companies (for water/wastewater and waste), and a number of other bodies. Almost all coastal municipalities have an environmental unit or person(s) dealing with environmental issues. Local level inspectorates include construction and communal inspections.

With the ongoing legal reforms, increasing environmental protection responsibilities are being delegated to municipalities. This refers to e.g. implementation of EIA, SEA and IPPC procedures, managing municipal waste and implementing noise protection measures. It is also expected that municipalities would assume greater responsibilities in nature protection in the future. However, their capacities to implement the new laws that have already come into force and the forthcoming ones are quite limited. Furthermore, municipalities are expected to use spatial planning as a tool to protect environmentally valuable areas, and set conditions for conservation and protection of local natural values near urban areas. Their actual performance is limited by a lack of financial resources, technical facilities and human capacity. Overall, it can be said that municipal capacities for integrated management approaches are well below satisfactory levels.

1.6.3 Other stakeholders

Tourism, maritime and industrial companies have an important role to play in managing coastal zone resources – both in terms of resource use and pollution reduction. However, their current involvement is not at the satisfactory level. Investments into tourism development are often seen as drivers of expansive construction and unsustainable use of space and coastal resources. On the other hand, there is a lack of incentives for polluters to improve their practices. A better enforcement framework and a lasting dialogue with business sector on what are the policy objectives and how best to achieve them, what are regulated community's obligations etc., are some of the ways to provide for a more sustainable development patterns at the coast. At the same time, it is necessary to ensure more transparency in development decision making.

Capacities of NGOs and other civil sector organisations have increased substantially over the course of the past several years, and civil sector is gaining a prominent role in policy development and implementation. NGOs can also play an important role in awareness raising and promoting ICZM Protocol and its mechanisms, and can therefore contribute to CAMP Montenegro implementation.

1.7 Assessment of the context for CAMP Montenegro

The following assessment of the context for CAMP Montenegro is based on a review of existing situation (legislation, strategies, plans, institutions and projects pertinent to coastal zone management) and discussions with stakeholders.

Significant progress has been made in Montenegro over the course of the last few years with adoption of new laws and strategic planning for sustainable development and ICZM. On the other hand, limited capacities and weaknesses in cooperation and coordination among various parts of administration are slowing down the implementation of the new legislation, policies and sustainable development strategies, and present an obstacle for putting into practice integrated management approaches.

Large number of laws regulates issues relevant to coastal zone management. Some of these laws are outdated and there is a need to revise them. Others were adopted recently, within the process of harmonising national legislation with the EU *acquis communautaire*. For some areas (e.g. maritime activities), process of legal harmonisation is long lasting due to complexity of issues and lack of necessary legal expertise for maritime law within country. There is also a growing number of tasks related to the implementation of ratified international agreements. In such a situation, a concern that arises is to which extent are legal reforms followed with strengthening of institutions to enable them to implement new regulations and policies. There is an apparent risk of widening of an already existing 'implementation gap'.

Overall, there is a favourable strategic framework for ICZM and SD in Montenegro. Sustainable development is widely accepted as a preferred development concept, however there is a risk of remaining at a declarative level rather than integrating

sustainability requirements into development policies and putting integrated management in practice. This is especially relevant for the coastal area where short-term economic gains may take precedence over longer-term sustainability requirements. There is a lack of experience with ICZM and instruments for resolving pronounced conflicts in different land/ sea uses in the coastal zone in a sustainable way. At the same time, there is a lack of indicators to measure progress towards sustainability. Implementation of CAMP and similar initiatives will help in overcoming some of these weaknesses and will contribute to putting the concepts into practice.

There is a large number of projects and initiatives aimed at preserving natural resources at the coast and stimulating development. In such conditions, there are substantial opportunities to achieve synergetic effects and ensure CAMP’s sustainability in the long term.

Capacities of the existing institutions (at both national and local levels) for integrated management are limited in terms of human and technical resources, financial resources and knowledge and practical experiences. There is a particular need to strengthen environmental and maritime administration and institutions in relation to the EU integration process and in the light of implementation of Barcelona Conventions and its protocols. In order to respond to ICZM Protocol requirements (and to implement national priorities) there is a need to establish a new structure for coastal zone management, while preserving and utilising capacities of the existing institutions and ensuring better coordination between them at all levels. Processes of development and implementation of spatial and other plans and programmes can be used to test and apply ICZM tools and approaches. Furthermore, there is a need for more transparent/ participatory ways of decision-making in the coastal zone and a more substantial involvement of municipalities in managing public maritime domain. Capacities of private and civil sectors need to be utilised to a greater extent in order to achieve better overall outcomes.

Based on the information presented in sections 1.3 – 1.6 and the above considerations, SWOT²⁶ analysis of the context in which CAMP Montenegro will be implemented has been carried out and its results are presented in the Box 1-3.

Box 1-3: SWOT analysis of the context for CAMP Montenegro implementation

Strengths	Weaknesses
<ul style="list-style-type: none"> • ICZM Protocol signed • New laws (SEA, IPPC, waste management, water) adopted • Ongoing harmonisation of laws with the EU <i>acquis</i> • Favourable strategic framework (NSSD adopted, NS ICAM soon to be adopted) • SD accepted as a prevailing development concept 	<ul style="list-style-type: none"> • Inexistence of structures for effective management in the coastal area • Poor coordination – horizontal and vertical • Low capacities and weak law enforcement • Lack of experience with ICZM tools / lack of indicators to measure progress towards sustainability

²⁶ Strengths, weakness, opportunities and threats

Opportunities	Threats
<ul style="list-style-type: none"> • EU integration process – further harmonisation of laws and capacity building • Possibilities to build synergies with ongoing/ future projects and initiatives • Implementation of initiatives and projects that promote integrated management • Involvement of a wide range of stakeholders may bring in additional capacities 	<ul style="list-style-type: none"> • Widening of the ‘implementation gap’ for laws and strategies • Dominance of short-term economic interests over long-term sustainability gains • Lack of support to integrated management concepts on implementation level (ICZM perceived as an obstacle to development) • SD remains a declaration that is not implemented • Low awareness of ICZM and low environmental awareness

2 CAMP area

2.1 Proposals for CAMP area

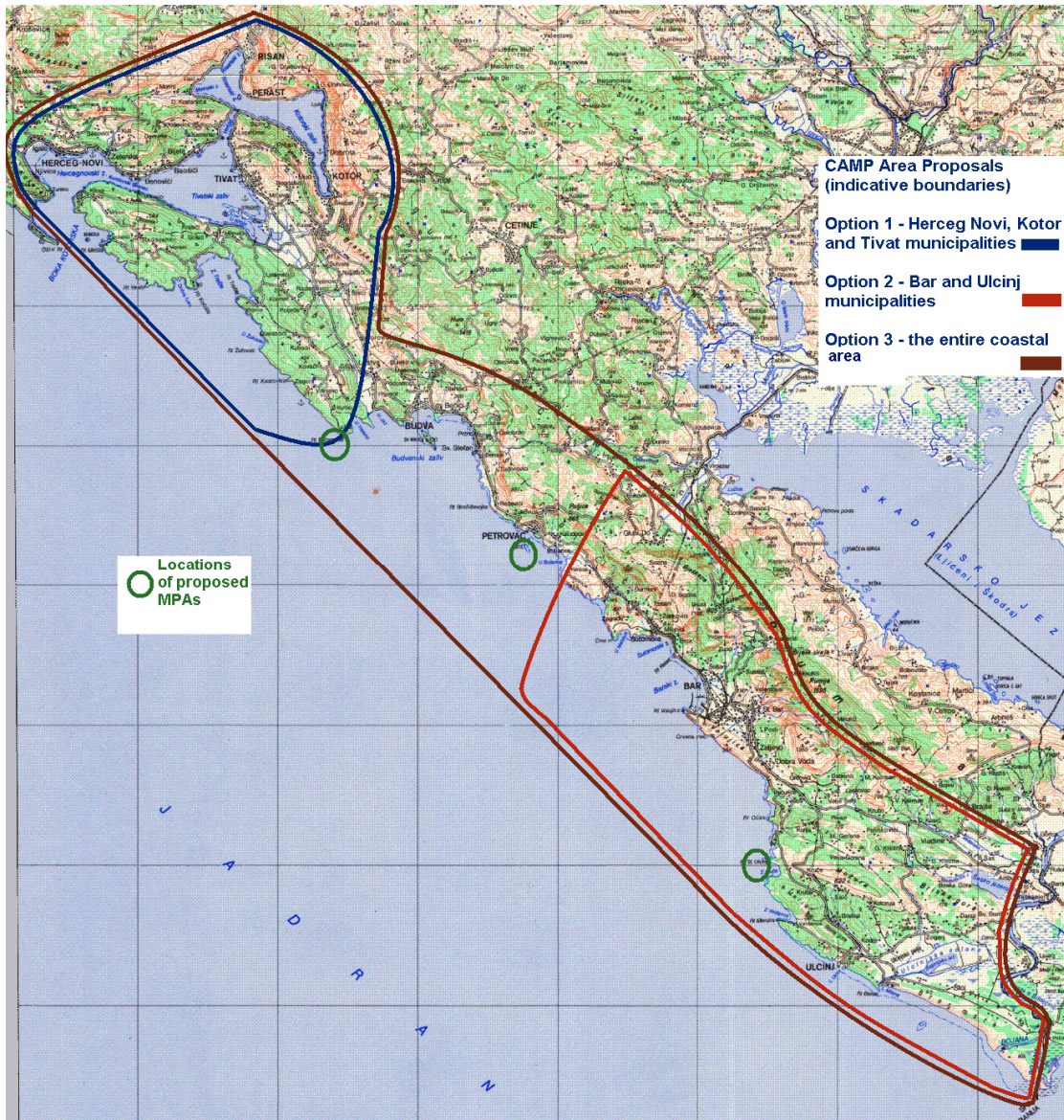
Starting point for the proposal of CAMP Montenegro area was the definition of costal area adopted by the draft Strategy for ICAM (marine border at the outer line of the territorial sea, land border coinciding with administrative borders of six coastal municipalities with an exception of the Skadar Lake National Park territory in Bar municipality). Based on discussions with different stakeholders, expressed national and local interest and with a view to the guidelines stated in the Terms of Reference for this Study, three possible options were identified for CAMP Montenegro area:

4. Boka Kotorska with Herceg Novi, Kotor and Tivat municipalities;
5. Bar and Ulcinj municipalities;
6. The entire coastal area.

Boka Kotorska is one of the most renowned stretches of the Montenegrin coast, part of which has been designated as UNESCO’s World Heritage Site. Concentration of different activities in this part of the coast is very high, and pollution problems (due to communal wastewater, maritime activities and industry) are expressed, exacerbated by the enclosed nature of the Bay and slow exchange of water with the open sea. Pressures from urbanisation and tourism development are substantial, especially in the areas that were previously used for military purposes and are now open for different land uses. Lustica peninsula, for example, is seen as one of the most attractive yet underdeveloped areas along the coast. In addition, a number of major infrastructure projects is planned or being considered, which may have an impact on the area. These first of all include a bridge over the Bay of Boka (Verige bridge) and Adriatic speedway. Areas for intensive agriculture and an industrial zone are also being planned. There is also a pressure to increase volume

of maritime transport within the Bay and port capacities. All three municipalities that are part of Boka Kotorska have expressed an interest in taking part in CAMP Montenegro.

Figure 2-1: CAMP area proposals (with marked locations of the proposed MPAs)



Notes: 1) Topographic map of Montenegro 1 : 200,000 (1982 edition of the Military Geographic Institute Belgrade) was used for this illustration.
 2) Indicative borders of CAMP area proposals (on land) are a rough representation of administrative borders of municipalities included under different options.

For the second option – **Bar and Ulcinj municipalities** – existing pressures are somewhat less pronounced (mainly due to specific configuration and level of urbanisation in Boka), however there are specific locations in this area too where pollution (mainly form communal waste and waste water and port facilities), overcrowded and poorly planned settlements and holiday resorts are found. In addition, the Port of Bar is located at this part of the coast. Expansion of the port is envisaged,

together with the development of an industrial complex in its background. Both Bar and Ulcinj municipalities have large stretches of underdeveloped areas suitable for tourism development, the most notable ones being Ada Bojana, Velika plaza and Valdanos areas in Ulcinj municipality. Hinterland of the two towns (Bar and Ulcinj) is also planned for development of agriculture, and there are several areas in these two municipalities that are recognised for their high ecological values (efforts to protect some of them are ongoing). Both municipalities have expressed interest for being included in CAMP Montenegro area, while representatives of Bar municipalities have expressed some reservations towards the instruments envisaged under the ICZM protocol.

Finally, as the third option, **the entire coastal area** is proposed as a geographic area in which CAMP Montenegro will be implemented. Arguments in favour of this option include the fact that the systemic problems which need to be addressed to ensure sustainable development of the coastal zone are the same for the entire region, and that the coastal area is relatively small (surface of around 1,500 km², total length of the coastline of 300 km, and less than 150 km of above ground distance). Given the fact that Montenegro recently signed ICZM Protocol of Barcelona Convention (with the intention to ratify it in 2008) and that a national strategy for ICAM will be adopted soon, implementation of CAMP Montenegro for the whole coastal area would be important as it could help to address some of the core issues and challenges. Both national and local interest has been shown for including the whole coastal area for CAMP Montenegro.

After consideration of arguments for each of the identified options, the entire coastal area is recommended for the implementation of CAMP Montenegro.

2.2 Description of the coastal area

2.2.1 Socio-economic conditions

Socio-economic conditions in the coastal region are largely affected by the overall state of the economy. After a strong recession in the 1990's and a recovery since the beginning of 2000's, economic growth rates in the last couple of years have reached the levels of around 4 – 8 % of GDP (estimated 7% in 2007). Besides strong growth of GDP, macroeconomic indicators show very strong growth in foreign direct investments (total inflow around € 1 billion in 2007, half of which in real estate; net FDI was € 525 million), intensive development of real estate market and capital market, decrease in unemployment, structural reforms, budgetary surplus etc. In the year 2006 budgetary surplus of 3.4% of GDP was recorded for the first time, and positive trends have also continued in 2007. The inflation rate remained at a low level over the past several years, but increased in 2007 to an average of 4.2% (measured by the cost of living index). The average net salary in 2007 was € 376. Unemployment rate fell below 15% in the last couple of years.

Total surface of the municipalities comprising coastal region of Montenegro is 1,591 km² (Herceg Novi 235, Kotor 335, Tivat 46, Budva 122, Bar 598, and Ulcinj 255 km²). For the purpose of this Study, coastal area is understood to cover somewhat smaller surface

(total surface decreased for the territory of Bar municipality belonging to Skadar Lake National Park) of around 1,500 km².

According to 2003 census, population of the region was 145,847, which makes a population density of 92 inhabitants per km². Coastal region is the most densely populated part of Montenegro (average population density for the country was 27 in 2003). High population density is due to continuing north – south population migrations and a high level of urbanization in the coastal region. Projections of population by the year 2020 envisage an increase of roughly 7% (bringing the total population of the region to around 156,000).

The network of settlements also has the highest density ratios in the country – an average of 15 settlements per 100 km². Within the region, the highest density is in Budva (27 settlements per 100 km²) and Tivat (26 settlements per 100 km²) municipalities. The highest degree of urbanization (share of urban population in total) of over 85% is found in Budva. The urban sprawl along the seashore already shows the signs of connecting between adjoining settlements.

Coastal region comprises three specific development zones - Boka Kotorska, central coast and southern coast. The economy is mainly based on tertiary activities, with tourism, construction, trade, industry and transport as predominant sectors. Per capita GDP is around € 3,600, which is close to central region and twice as much as GDP per capita in the northern region. Development and urban capacities are mainly linearly located along the coast line. Investment pressure is high in this area and it contributes to uncontrolled development. The present spatial structures and conditions in the coastal area call for careful spatial planning and land use policies in the future in order to preserve specific natural conditions and the Mediterranean character of Montenegrin coastal zone.

2.2.2 Nature and natural resources in the coastal area

Some of the typical natural features of the coastal area include: diversified geological composition and complex geo-tectonic structure; plain coastal areas/ fields and beaches; steep elevations of Orjen, Lovcen and Rumija mountains (which separate the area from the central part of Montenegro); short watercourses flowing into the sea, dividing the region into small geo-morphological units; and the exquisite Bay of Boka with several smaller bays.

The sea off the Montenegrin coast (some 200 km wide belt) makes part of the South Adriatic valley, where the biggest depths in the Adriatic (of up to 1,400 m) are recorded. Water salinity of the South Adriatic (38.6%) is somewhat below the Mediterranean average (39%). Summer time water temperature may reach 27 °C. Rather slow currents flow in parallel to the shore north-westwards, and the tides are not strong (average amplitude is 35 cm). Rocky seashore is predominant, and the coastal sea is mainly deep. Only 20% of the coastal sea, next to low sandy beaches and accessible rocky shores, is relatively shallow with a sandy and pebble bottom suitable for bathing.

According to the Spatial Plan of Special Purpose Area (SP) *Morsko dobro*²⁷, total length of the mainland seashore is 288.2 km (out of which 105.5 km in the Bay of Boka, length of the shore of islands is 25.6 km while length of the shore along Bojana river is 22.8 km. This brings total length of shores to 336.60 km. A breakdown by municipality is given in the Table 2-1.

Table 2-1: Length of the seashore

Municipality/ Bojana river	Seashore length (km)	Islands (km)	Total seashore (mainland and islands)
Herceg Novi	59.47	1.25	60.72
Kotor	67.25	0.51	67.76
Tivat	37.06	4.75	41.81
Budva	34.67	5.98	40.65
Bar	44.1	0.14	44.24
Ulcinj	45.66	12.98	58.64
Total seashore	288.21	25.61	313.82
Bojana river (Ulcinj)	22.8	-	22.8
All shores	311.01	25.61	336.62

Source: SP *Morsko dobro*

Coastal area is an important biodiversity centre (in term of habitat and species diversity) and a home to several rare and endemic species. However, current share of protected areas in the coastal zone is very low and it refers to three categories:

- monuments of nature (includes communities of Bosnian pine *Pinus heldraichii* on Orjen, Lovcen and Rumija, some 20 beaches along the entire coast, botanical garden near Risan and three town parks – in Herceg Novi, Tivat and Bar – Topolica);
- areas with special natural characteristics (hill Spas above Budva, peninsula Ratac with Zukotrlica, and Old Ulcinj island); and
- areas protected by municipal decisions (Kotor – Risan Bay with total surface of around 15,000 ha).

Tivat Saltpans have been declared a protected area in 2007, but the management regime has not been established yet. There are no Marine Protected Areas. As discussed above, national strategies envisage a goal of increasing the share of protected areas at the coast to 10%.

There are four areas in the coastal zone of Montenegro that have been recognised as Important Bird Areas according to the criteria from relevant EU legislation and these are Delta of Bojana river, Rumija mountain, Buljarica area and Tivat Saltpans. Areas of Special Conservation Interest in the coastal area have also been identified under Emerald project, and these activities represent building blocks for future establishment of Natura 2000 network in Montenegro.

²⁷ Based on the cadastre data from Real Estate Administration.

Coastal area has specific landscape values, and the following landscape types have been recognised: 1) the Bay of Boka, including Lustica peninsula; 2) central and southern coastal region with the Bay of Buljarica; 3) Tivat Salt pans; 4) Ulcinj area dunes and Ada Bojana Island; 5) Bojana River Valley, Zogajsko Mud, Solana Ulcinj and Sasko Lake; and 6) mountain massifs of Orjen, Lovcen and Rumija.

Forests in the coastal area are mainly low productivity forests that have a protective role. Sprout forests, bushes, and shrubbery account for 73% of total forested surface at the coast. The main sources of pressures on coastal forests are urbanization and fires that are regularly, during the summer half of the year, damaging large surfaces of vegetated areas. Agricultural land suitable for cultivation makes around 19,000 ha in the whole coastal area (mainly in Ulcinj, Bar, Tivat and Kotor municipalities), and is quite a limited resource. Furthermore, it is exposed to substantial pressures due to continuous conversion into construction land.

Except for Bojana River, rivers and creeks in the coastal area are characterised with short courses and relatively small flows; some of them are regularly drying out during the summer season. The most important rivers are Zeljeznica (Bar municipality), Rezevica river (Budva) and Sutorina (Herceg Novi). Sasko Lake covers an area of around 400 ha (during low water) and is connected with Bojana river through St Djordje channel.

The most significant mineral deposits in the coastal area refer to construction materials (stone, sand), and underground mineral and drinking waters. Sea salt is produced in the salt works Solana Ulcinj. There has been some off-shore exploration of the potential gas and oil reserves (and the exploration is expected to continue), but no exploitation.

2.2.3 Economic activities and manmade resources

2.2.3.1 Agriculture and fisheries

Agriculture is not contributing significantly to GDP in the coastal area yet it plays an important role as an activity that supplements household incomes, and contributes to tourism development and preservation of traditional Mediterranean agricultural practices. The main cultures that are currently grown in the coastal area include olive trees (presently covering around 2,800 ha) and citruses (around 270 ha). Natural conditions are very favourable for olives, citrus fruits, fruits, medical herbs, spices, vegetables, and flowers growing. The main areas with potentials for agriculture development include Stoj, and Ulcinjsko and Zogajsko fields in Ulcinj municipality (where around 60% of all the coastal agricultural land is located), Barsko field (even though with limited capacity of around 90 ha of mainly built up area) and Mrcevo, Tivatsko and Sutorinsko fields (in Boka Kotorska). Through adequate incentives and agricultural policies, agricultural production in the coastal area could have a much more prominent role.

Sea fishing and aquaculture are also activities with low (even though growing) share in the national GDP. Share of the entire fishery sector (sea and freshwater fishery) in the GDP has been on the level of 0.4 to 0.5 % during the last few years. Total annual catch of sea fish is 1,700 tones, while aquaculture production is on the level of 50 tones of fish

and 200 tones of shellfish annually. Around 200 people is employed in this sector – 159 in sea fishing and 36 in aquaculture activities. Fishing fleet comprises 22 vessels, 19 of which are trawlers. National fishing fleet does not fish beyond the line of 12 nm. Other fishing activities are performed by small-scale gears in the littoral part of the sea. In 2005, 70 fishing permits have been issued to individual fishermen to whom fishing is an additional activity. Stocks of ‘blue fish’ represent a so far underutilised resource. Overall, total annual catches are said to be at a sustainable level. However, the problem of uncontrolled/ illegal fishing is also present at the coast.

2.2.3.2 Tourism and urbanisation

Tourism is the main development priority and an important comparative advantage of Montenegrin economy. In the last years, tourism was contributing to around 15% of GDP, with a projected increase to more then 20% by the year 2015. A predominant share of capacities, overnight stays and revenues from tourism is linked to coastal area. In 2007, total number of overnight stays in tourism was 7.29 million – a 23% increase compared to 2006.

Statistics of the existing capacities is not complete due to the fact that significant number of beds in apartments and houses are not captured by the official statistics. Estimations from 2005 have placed the overall accommodation capacity (for the whole of Montenegro) in the range of 296,000 to 398,000 beds. The statistics on registered beds in basic accommodation (hotels and similar) is relatively accurate and these capacities were 41,674, meaning that only 10 – 14% of total capacities are in hotels and similar type of capacities. Distribution of basic and complementary capacities by coastal municipalities (according to the official statistics i.e. not accounting for all beds) in 2004 is shown in the Table 2-2, together with the number of hotels and share of coastal in total Montenegrin capacities.

Table 2-2: Distribution of accommodation capacities by municipality and share in total capacities in the country

Municipality/ area	Situation in 2004				
	Beds in basic capacities	Beds in complement capacities	Total number of beds	No of hotels and similar capacities	Share (%) of coastal cap. in total MN
Herceg Novi	4,843	16,519	21,362	28	19.12
Kotor	1,555	3,094	4,649	11	4.16
Tivat	1,820	1,598	3,418	12	3.06
Budva	13,751	16,913	30,664	56	27.45
Bar	6,414	19,134	25,548	32	22.87
Ulcinj	6,810	19,270	26,080	20	23.34
Coastal area	35,193	76,528	111,721	159	96.18

Source: National Spatial Plan

Even though good results have been achieved in modernization and construction of tourism facilities during the last years, a number of important problems remains. Existing structure of accommodation capacities is in contradiction with strategic objectives of tourism development of Montenegro, where a target was set to increase the share of basic accommodation in total capacities to approximately 40%. Weekend houses and apartments participate with 44% in total accommodation capacities. Furthermore, so called additional tourism offer is not developed in a way to match the existing capacities. Especially pronounced problems are linked to insufficient technical infrastructure such as water supply, roads/ streets network, and systems for waste and wastewater collection, treatment and disposal. Alternative, nature based and similar types of tourism are not well developed, despite significant progress and efforts in this area in the last few years.

Closely linked to tourism development is growing urbanisation, which is at some parts of the coast endangering natural and cultural qualities on which tourism development is based.

Figure 2-2: Construction on the seashore: the traditional ways on Kakrc location (lower right corner) and recently built apartment buildings in Rafailovici, Budva



Photo by Marina Markovic; photo of the Kakrc location from the website of PE *Morsko dobro*

Uncontrolled construction that took part over the course of the past 15 years followed by the current high demand for real estate in the coastal region are changing faces of some towns and locations at Montenegrin coast. The most pronounced changes were seen in the town of Budva, while substantial urbanisation pressures are also evident in Boka

Kotorska, Herceg Novi, Bar and Ulcinj. Most at risk are attractive locations on the seashore.

2.2.3.3 Energy, industry and mining

There are no major energy generation facilities in the coastal zone and no plans to build any. The electric power system comprises transmission and distribution networks, which are substantially overloaded for some parts of the coast. Facilities (reservoirs, transfer stations) of *Jugopetrol* – the main supplier and distributor of oil and oil derivatives – are located in the Bay of Boka. So far, limited off-shore oil and gas explorations were conducted, and there are plans for their continuation. As for major infrastructure systems the construction of which is being considered and which may pass through the coastal zone, there is a possibility for a major gas pipeline (coming from the north to the Bar area).

Industry of the coastal municipalities accounts for around 15% of GDP. The main industrial capacities are:

- Metal processing industry and chemical products manufacturing in Kotor;
- Salt production in Ulcinj;
- Production of base chemical products in Buljarica and Bijela
- Food processing capacities in Bar and Herceg Novi;
- Beverage production in Bar, and
- Capacities for medical herb and forest fruit processing in Bar.

Around 10 quarries are in operation for the exploitation of stone and other construction materials.

2.2.3.4 Transport and other infrastructure

Tivat Airport is the only airport in the coastal region, with a 2,500 m long and 45 m wide runway.

Several international ports are in operation (ports of Bar, Kotor, Zelenika and Risan – the latter three being located in the Bay of Boka) as well as a number of ports for domestic maritime transport, marinas and docks.

The scope of activities performed at the port of Bar includes: loading and discharging cargo, passenger terminal, cargo warehousing, additional cargo handling, piloting, berthing, ship supplying, maintenance of technical systems etc. The port of Kotor is used exclusively as a passenger terminal for liners and cruisers. It accounts for 100% of cruising vessels turnover and 84% of nautical tourism turnover in Montenegro. The ports of Zelenika and Risan have much smaller scope of operation. An overview of port infrastructure and possible/ planned developments is provided in the Table 2-3.

Table 2-3: Port infrastructure and planned developments

Characteristics/ planned develop	Port of Bar	Port of Kotor	Port of Zelenika*	Port of Risan
Wharf length (m)	3,484	512.6	267	75
Current port area (m ²)	1,300,000	4,000	25,000	2,320
Possible developments under existing plans	600 ha reserved for the development of port industrial complex	<ul style="list-style-type: none"> - development of a nautical tourism centre - development of a port building - possible expansion (20,000 m²) to meet the needs of planned Free Zone Kotor - need to extend the operational shore 	<ul style="list-style-type: none"> - development primarily as a passenger port with additional cargo facilities (special development study needed) - construction of a 200-berth marina 	<ul style="list-style-type: none"> - special study of development opportunities needed;

Source: National Spatial Plan

* Note: Local referendum has been organised on proposed construction of silos for cement reloading in the Port of Zelenika in April 2008, and the project was rejected. The construction of silos had already started before the vote.

The road network in the coastal area consists of 357 km of main and regional roads, comprising around 20% of the Montenegrin road system. The density of the main and regional roads system is 22 km/ 100 km², which is almost double in comparison to the rest of the country. Lack of bypasses in the towns through which the Adriatic main road passes represents a significant problem for the area. Congestions are experienced regularly on certain sections of roads (access to major towns and holiday resorts) during the tourist season, even though there are ongoing reconstruction and roads expansion schemes. Another marked problem in the coastal area is a lack of parking areas which reduces the quality of tourist offer and has a negative impact on safety.

There is only one railroad line in the coastal area, and that is a stretch of Bar – Podgorica (and further Belgrade) railroad.

2.2.3.5 Maritime activities

With around 2.5 millions tones of goods and 66,000 passengers annually, the volume of maritime transport in Montenegro is relatively low. Better use of port, railway and road capacities is planned, as well as development of supplementary maritime activities. Prior to 1991, Montenegro used to have a respectable trade fleet and shipping was a significant source of employment in the costal area. Nowadays, however, domestic shipping industry is very limited. More than 4,500 seamen of all qualification profiles are still employed in shipping industry, predominantly on foreign ships.

Total length of waterways in the Montenegrin coastal sea is 66 nm (122.2 km). Out of this, 50 nm are in the open sea, and 16 nm are within the Bay of Boka. The waterways are marked by navigation safety facilities (lighthouses, shore, buoys etc).

Control and safety of navigation is performed by Maritime Safety Administration and Harbour Master's Offices from Kotor and Bar (the latter have branch offices in several towns in the area of their competences). Common characteristics of these services are insufficient technical capacities and lack of specialized teams for interventions (e.g. there are no search or rescue squads). Their capacities to act in cases of accidents are also quite limited, even though some initial steps have been made to improve the situation (through public-private partnership described in the section 1.5). Some of the factors that undermine efforts of these services to control pollution from ships are very low fines that current regulations prescribe, time consuming logistics for sampling and analyses in support of pollution claims (the only certified laboratory for such work is CER from Podgorica) and weak legal capacities.

Two shipyards were in operation in the coastal area, and one of them (ship overhaul institute from Tivat, serving mainly for military ships maintenance) has been closed and sold to a private developer for a large marina/ tourist complex development. Adriatic Shipyard Bijela is still operating, and its privatisation is planned for 2008. The shipyard covers an area of 12.1 ha while surface of its aquatorium is 35 ha; it has around 700 of permanent employees and some 300 subcontractors. The company provides ship repair services and equipment maintenance (motors, turbines, regulators etc.).

The main environmental impacts of the Shipyard Bijela are linked to preparation of anti-corrosive works on ships (i.e. to the use of agents to remove old paints from ships and wastes that accumulate from the process), use of paints, chemicals for washing, and acceptance and handling of oily waste and bilge water from ships. The Shipyard has introduced ISO14001 standards for environmental management, but has limited human resources (2 persons) and budgets to work on environmental improvements.

2.2.4 Main pressures and their impacts on the coastal area environment

In its 2007 report Europe's Environment – the Fourth Assessment, the EEA has described relations between pressures on marine and costal environment and the main impacts that come from them. Box 2-1 gives an overview of these relations (as identified in the EEA report) for selected activities that are most relevant for Montenegrin coastal area.

Box 2-1: Impacts related to main pressures on the coastal and marine environment

Pressures	Main impacts
Agriculture	Eutrophication, pollution, biodiversity/ habitat loss, increased water demand
Industrial and infrastructure development	Coastal squeeze, eutrophication, pollution, habitat loss/ fragmentation, subsidence, erosion, altered sediment balance, turbidity, altered hydrology, increased water demand and flood-risk, seabed disturbance, thermal pollution

Urbanisation and tourism	Coastal squeeze, highly variable impacts by season and location, artificial beach regeneration and management, habitat disruption, biodiversity loss, eutrophication, pollution, increased water demand, altered sediment transport, litter, microbes
Aquaculture	Overfishing of wild species for fish feed, alien species invasions, genetic alterations, diseases and parasite spread to wild fish, pollution, eutrophication
Shipping	Operational oil discharges and accidental spills, alien species invasions, pollution, litter, noise

Source: EEA, 2007

In addition, climate change impacts are highly relevant for the coastal areas (and they include increased/ changed risk of floods and erosion, sea-level rise, increased sea surface temperature, acidification, altered species composition and distribution, biodiversity loss). Currently, climate change is not at all integrated in the national planning in Montenegro (there are no vulnerability assessments nor adaptation measures/ plans).

Starting from this overview, the most pronounced impacts (pollution and spatial impacts) of the pressures from coastal zone activities in Montenegro are discussed in the following two sections in more details.

2.2.4.1 Pollution

Urbanisation and tourism, industry and maritime activities are the main sources of marine and coastal pollution in Montenegro. Urban areas and tourism complexes generate waste and wastewater which are not managed properly and represent significant pollution sources. Due to a lack of comprehensive monitoring programme in the coastal area, only general data on the impacts from these pressures are available (and discussed below).

Communal wastewaters are either discharged into the sea untreated or they infiltrate into the ground from leaking network pipes and septic tanks. Prior to the ongoing sewage system rehabilitation and expansion works, only 56% of the population in the coastal region was connected to sewerage network. Only 10 out of some 80 outlets discharging wastewater into the sea are longer than 1,000 m, and there are problems with efficiency of pumping stations.

Some improvements of sewers and pumping stations were already made, and there are ongoing works on pumping stations in Bar and Herceg Novi. Connection rates will increase following completion of the ongoing interventions (sewage reconstruction/ construction systems ongoing in Tivat and Kotor, and interventions in Ulcinj are planned). However, there are no immediate plans for construction of WWTPs.

Pollution problems are especially pronounced in the Bay of Boka where there are evident signs of eutrophication, but there are also other critical areas (e.g. in Budva, Bar and Ulcinj municipalities) where especially during the summer season pollution exceeds allowed limits. Neither the ongoing first phase of the Kotor sewage system reconstruction nor future second phase are covering small settlements on some stretches of coast within

the Bay (e.g. on Lepetane – Prčanj and Perast – Herceg Novi sections of the coast). Pollution loads carried to the sea via Bojana river are also significant.

Other significant sources of pollution are the Port of Bar, Shipyard Bijela and former Ship Overhaul Institute from Tivat. The so far monitoring programmes and specific monitoring campaigns identified increased concentrations of toxicants in each of these three locations. The system for protection of the sea from pollution from vessels is insufficiently developed, so both regular shipping activities and potential accidental pollution still represent a major problem.

Pollution hot-spots (marked with red dots) and sensitive areas (yellow marks) in the coastal sea that were identified in the process of developing National Action Plan for Reduction of Pollution from Land Based Sources (NAP) and supporting documents are shown in the Figure 2-3.

Figure 2-3: NAP Montenegro: hot spots and sensitive areas



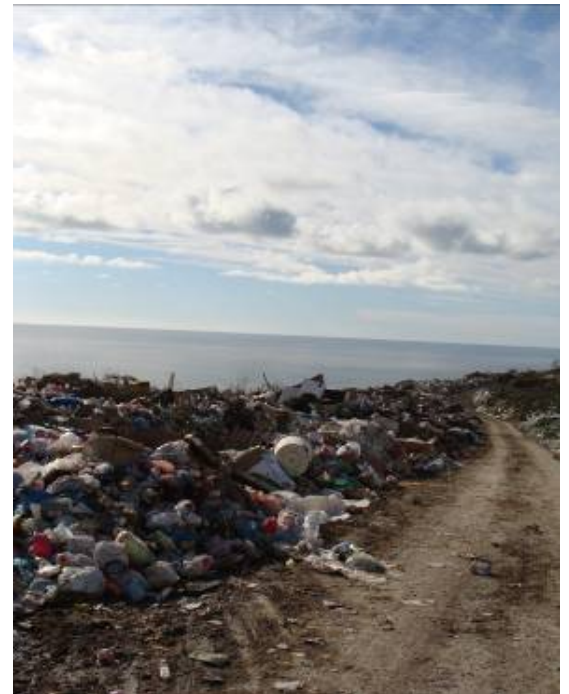
Source: Pavle Djuraskovic's presentation for the 2nd Round Table on the Protection and Sustainable Development of Montenegrin Coast, Kotor, February 2008

Management of communal and other types of solid waste is also inadequate and contributes to overall pollution levels. Even though some important steps to reduce pollution from waste have been undertaken – including introduction of separate collection and recycling, and construction of the first sanitary landfill Lovanja – wastes from all the coastal municipalities are still disposed on inappropriate locations and in an inadequate manner. Lovanja was a temporary sanitary landfill which is now closed, so the three municipalities (Kotor, Tivat and Budva) that used this landfill are transporting their waste to Cetinje municipality in the central region of the country (until conditions are met to start with a construction of a regional landfill serving the three).

The following figure illustrates achievements with separate collection in Herceg Novi and shows a municipal waste dump located on a slope above the sea which is currently used for disposal of wastes from Bar and Ulcinj. Construction of a landfill for these two

municipalities is expected to start soon. Waste Master Plan envisaged three regional landfills in the coast: for Bar and Ulcinj (for an estimated quantity of 11,400 t/year); for Budva, Tivat and Kotor (for 13,200 t/year); and for Herceg Novi (7,800 t/year). Options that Herceg Novi joins to a regional solution for other Boka Kotorska municipalities and Budva are being considered.

Figure 2-4: Handling of wastes



Photos by Marina Markovic

While there are ongoing efforts to address major pollution impacts from settlements, tourism, maritime activities and industry, a number of risks still remains including further (and possibly increased) discharges of untreated wastewaters, insufficient remediation measures for polluting technological processes, accidental release of pollution from ships and insufficient port infrastructure (international ports, marinas and shipyards) to accept wastes from vessels.

2.2.4.2 Spatial impacts

Even though there are very limited data on the effects of negative trends in planning and land use practices over the course of the past 20 years, the impacts are very visible in different locations along the coast. A sharp increase in built up areas (mainly due to unplanned/ illegal construction), poor planning, overcrowding of objects and sub-standard infrastructure in the newly developed areas are some of the main characteristics of the ongoing urbanisation processes. It is not clear whether these trends will be stopped in the near future, since coastal real estate market is very active, with main share of demand coming from international investors. For example, half of the total inflow of

direct foreign investment in 2007 (around € 500 million²⁸) was in real estate. Construction is considered to be very profitable businesses, providing as high as triple returns on the investment.

On the other hand, coastal squeeze has already caused degradation of natural and landscape values in some areas, and through an increased pressure on public spaces (such as beaches) and infrastructure, it is threatening to undermine the quality of the main product in the Montenegrin coastal area – tourist offer.

Figure 2-5: High season on a Montenegrin beach



Photo from the PEW-MC website

Negative impacts of various activities on specific features of coastal natural environments have been identified in several national strategies and plans. For example, NSSD states that “...these activities led to a more or less unsustainable exploitation of non-renewable natural resources of the coastal region (primarily of the space and landscape values). Today we may say that to a large extent, the space on the coast as a unique and specific value of Montenegro, has already been ‘used up’ for diverse economic and other human activities, since it has undergone a significant change of natural and landscape values.”

Similarly, NS ICAM recognises that accumulated negative impacts from human activities at the coast represent a limitation for its future development. The Strategy particularly highlights the existing intense concentration of capacities along the very shoreline and notable over-saturation with construction and human activities in certain zones. NSP emphasises risk of ‘artificialisation’ of the coast, should the intensity of construction (especially of the uncontrolled/ illegal construction) continue at the same pace. This would decrease the level of attractiveness of the coastal area and undermine development potentials in the long run.

²⁸ Figure refers to the whole of Montenegro, but with a substantial share of coastal region.

Increasing tourism and urbanization have also been identified as one of the main causes for habitat destruction and biodiversity loss. The existing legal and institutional framework has proved ineffective in managing these pressures.

Figure 2-6: Effects of preparations for tourist season on Velika plaza, Ulcinj



Photo by Vasilije Buskovic

An example of the pressures to which valuable ecosystems are exposed is given in the Figure 2-6, where construction works (for access roads and parking areas) have destroyed vegetation cover on a particular location on Velika plaza, Ulcinj. Velika plaza (the Long Beach) and the area of adjacent Ada Bojana (an island in Bojana river delta) is known for specific coastal ecosystems with high conservation value (such as coastal wetlands, sand dunes and coastal forests and woods) and is a home to a number of rare/ endangered halophytes (such as *Pancretium maritimum*) and other plant species. The Long Beach is part of the Bojana – Buna Delta area that is subject to WB MSTD project - component for the establishment of protected area (see Figure 2-7).

At the same, there is an ongoing process to develop a concept for a large tourism complex at Velika plaza. With technical assistance of EBRD, the process has been initiated by MED. The Ministry foresees a project of mixed purpose and large scope, aesthetically and environmentally acceptable, which would include a large tourist component with hotels, rest and recreation facilities, high-quality housing units and commercial premises.

Figure 2-7: The World Bank project: supporting the establishment of protected area in Bojana delta



Source: Project Appraisal Document, the WB website

The NSP has recognised changes in the structure of urban settlements and their merging in some areas along the coast, and has forecasted continuation of such trend in particular for the areas Herceg Novi – Tivat, Budva – Petrovac and Sutomore – Bar – Ulcinj.

Another effect of the urbanisation and development trends over a longer period of time (from mid 20th century onwards) is depopulation of rural areas in the coastal region, which has had a negative impact on preservation of traditional agriculture, crafts and architectural heritage.

2.2.5 Cultural heritage

According to the current legislation, 357 archaeological, historical, artistic, ethnological and other types of monuments are considered as cultural heritage in Montenegro. Based on their significance, all monuments are classified into one of the three general categories. Category I (with 35 such monuments) refers to monuments of exceptional significance, including the ones registered as the World Cultural Heritage. Categories II and III include, respectively, monuments of major significance (135) and monuments of local significance (187). A large share of Montenegrin cultural heritage is located in the coastal area (see Table 2-4).

Table 2-4: Overview of protected cultural monuments by categories, types and municipalities

Municipality	Category			Type of monuments									Total
	I	II	III	Urban unit	Old town	Sacr mon	Prof mon	Fortif mon	Archeol mon	Ethnol mon	Tech mon	Memor mon	
Herceg Novi	1	17	29	2		37	1	5				2	47
Kotor	10	30	23	2	-	33	22	1	4	-	1	-	63
Tivat	-	4	6	-		7	2		1				10
Budva	1	15	10	1	1	16	-	3	3	1	1	-	26
Bar	1	13	19	1	-	23	1	3	1	1	2	1	33
Ulcinj	2	1	7	1	1	5	1		1		1		10
COAST	15	80	94	7	2	121	27	12	10	2	4	3	189

Source: National Spatial Plan

Cultural heritage in Montenegro is estimated to be in a very bad condition due to a number of factors including inadequate protection measures, pressures from urbanisation, neglect and similar. The state of documentation on cultural heritage is not on a satisfactory level, and in particular archaeological locations (including submarine ones) are poorly documented. The information system is outdated – for example there is no digital documentation database, which hampers proper management.

In the coastal zone, protection of cultural heritage is faced with similar weaknesses as the ones evidenced for natural environments, including poor enforcement of regulations and inefficient inspectorates, uncontrolled urbanisation, illegal construction and similar.

As already mentioned, management plan for the Kotor World Heritage area has been recently prepared and it is expected to mitigate negative trends and improve management of the site. UNESCO report that preceded this plan noted down that “the level of urbanisation was worrying and threatening to endanger cultural landscape”.

2.2.6 Natural hazards

A number of natural hazards has been recognized in the national policies, strategy papers and plans, including first of all seismic hazards. The entire coastal region is an active seismic area. The most recent major earthquake hit the coastal region in 1979 (IX degrees MCS) claiming 101 lives. Within the coastal region, Bar – Ulcinj and Budva (Brajici) zones, as well as Boka Kotorska zone are marked as zones where seismic hazards are particularly pronounced. Even though an extensive work has been done (after the 1979 quake) on seismic zoning, planning and construction requirements to reduce risks, a general assessment is that current developments are largely done in a way that does not provide for minimization of seismic risks. Definition of procedures for assessment and consideration of seismic risks in elaborating local spatial and urban plans is responsibility of municipalities.

Another hazard that is recognised and where some guidelines are issued on how to manage associated risks are unregulated land slides (for example in Herceg Novi and Budva).

There is very little data on coastal erosion, and consequently there are no attempts to provide adequate responses to this natural phenomenon. Similarly, the existing policies and strategies do not recognize and integrate climate change concerns into the coastal area planning and management. First National Communication towards the UNFCCC (including segments on vulnerability and adaptation measures) is being prepared. On the other hand, it is widely recognised that climate change is very likely to cause major alterations in sea temperature, sea level, currents and other properties of the sea. Other predicted impacts include altered growing seasons, and shifts in species composition and distribution. According to EEA, adaptation policies should include measures to reduce non-climatic impacts in order to increase the resilience of marine ecosystems and the coastal zone to climate change.

2.3 Assessment of future development trends

This section briefly discusses the main sectors and areas where substantial growth/development is expected in the future, outlines some of the main policy and strategic guidelines that are in place to steer these developments and identifies the main issues and challenges for integrated coastal zone management and sustainable development.

Tourism is the key economic sector where substantial growth can be expected in the coming period. Montenegro has regained position of an attractive tourist destination on the international market, and there is a high interest of investors to develop further capacities along the coast. The Tourism Master Plan projects several-fold increase in the total number of beds until the year 2020, emphasising the need for a sharp increase in the basic capacities/ hotel beds but also recommending some tourism density limits for new capacities. The revised Master Plan is expected to have even stronger emphasis on the need to integrate sustainability criteria in tourism planning. Recent development has, however, shown a large increase in apartments and housing units, which has contributed

to coastal squeeze and related negative impacts on environment and infrastructure but has not (and will not) yielded proportional benefits (in terms of revenues earned). There is an obvious need to reverse this trend and in particular to prevent negative development patterns in those areas that are currently less developed, as well as to mitigate/ prevent further deterioration in the areas where there's been a large increase in built up areas in the previous period.

Policy guidelines for tourism development (as formulated in the NSSD and NS ICAM, and expected in the revised Tourism Master Plan) are favourable for the application of ICZM and sustainable development requirements. However, implementation of these guidelines is not that clear. Similarly, principles and tourism development objectives given by the NSP recognise the need to minimise impacts on environment and move towards higher quality and more sustainable forms of tourism, emphasising *inter alia* that:

- Every aspect of tourism development should aim at preserving natural values which make the basis for the tourism in Montenegro; this includes respect for architectural structures as well as for carrying capacity in the respective areas; and
- Improvements in the existing and development of additional accommodation facilities should be based on the following criteria: (a) revitalization of existing buildings, (b) integration of contemporary architectural achievements while respecting traditional urban and natural settings, and (c) steering development to existing settlements to avoid unnecessary land take and to increase the efficiency of communal infrastructure and services.

Putting these principles into practice with the existing high investment pressure, weak administrative structures and some ambiguities in the Plan itself, will represent a major challenge.

Other sectors where substantial growth can be expected/ is planned are maritime transport (with related development of port facilities), industry and agriculture. A significant expansion of the Port of Bar is envisaged, as a part of development of a port-industrial complex with associated free economic zone. Another strategic location for industrial development is Grbaljsko field (Kotor/ Tivat municipalities), also with a free economic zone. Zones of local importance for industrial development are smaller locations in Tivat, Sutorinsko (Herceg Novi) and Ulcinjsko field.

As for agriculture, agricultural land is planned to be preserved (and agriculture developed) on a minimum of 8,900 ha in Vladimirska and Ulcinjska fields (Ulcinj) i.e. on a minimum of 3,000 ha in Grbaljsko, Mrcevo and Tivatsko fields (Kotor/ Tivat).

Major transport infrastructure projects that are planned/ being considered are Adriatic speedway (Herceg Novi – Ulcinj) and construction of Verige bridge.

Two or three regional/ municipal landfills are planned in the coastal zone.

Policies for spatial development of the coastal region (an excerpt from the NSP) are provided below:

- Harmonized development of towns in the Bay of Boka should be provided through adequate spatial plans and strong inter-municipal cooperation. It is anticipated that these towns will establish a strong conurbation, based on well-coordinated programmes for development.
- Rural settlements should be protected from further degradation.
- Water quality of the sea in coastal zone should be controlled.
- In order to protect environment and landscape values, special attention should be paid to ecologic corridor along coastal mountains (Orjen, Lovcen and Rumija). The greatest threat for these values is current trend of continuous construction (artificialisation of the shore).

The NSP does not recognise the list of potential protected areas specified under the NSSD and reiterated by the NS ICAM.

Based on a review of the main development trends and the earlier assessment of the legal, policy and institutional context, the main issues and challenges for integrated coastal zone management and sustainable development are identified and described below.

8. Ensuring better horizontal and vertical coordination between different parts of administration

Coordination (or a lack of it) has been one of the central issues on the problem side of the sustainable development agenda. The UNECE EPR for example noted down “some inadequacies ... in the allocation of environmental tasks across different ministries” and assessed that the lack of cooperation between the national and local levels was a serious drawback. The report further recommended that decentralisation should be a guiding principle for delineating competences but with an obligation of reporting to the national level to ensure consistency between actions. The National Spatial Plan also recognises that in the organisational sense, spatial planning and management at the national level is not sufficiently linked and coordinated with the local level. Other national strategies and plans also highlight this problem.

Coordination is not only necessary for policy integration and planning, but also for policy implementation and law enforcement. Ensuring better law enforcement through coordination improvements and capacity building is another important challenge for the development of the coastal zone. The need to prevent negative trends that have been evidenced so far (such as unplanned and illegal construction) and minimise their presence in the future development processes is very important.

The same stands for consistent enforcement of regulations on free access to the sea/coastline for the public (which is currently prescribed under Montenegrin legislation). The practice is sometimes different. A strong pressure from investors to ‘privatise’ parts of the area designated as ‘public asset’ is notable, and PE *Morsko dobro* does not necessarily have the means to react and ensure enforcement of the law in a timely manner.

Figure 2-8: A sign indicating private property on the seashore in the vicinity of Arza fortification



Photo by Antonela Rajcevic, NGO Evropski dom Tivat

9. Managing pressures from urbanization and tourism development

Improving spatial planning documents (i.e. providing for integrated or ecosystem based approach in planning), improving their implementation and halting illegal construction are some of the key issues for better management of urbanisation and tourism pressures and for sustainable development. A major challenge (in light of weak capacities, distribution of planning competences and insufficient coordination) will be harmonisation of national and local level spatial and urban plans. For example, 17 detailed plans (studies of locations) are now being developed in the public maritime domain zone under the competences of national level institutions (MED) and at the same time there is a large number of plans elaborated on the local level. Harmonisation between spatial and other types of plans is also very important.

Illegal construction remains an important problem until nowadays, having among other things negative impacts on the Mediterranean architectural heritage, typical landscapes,

and indirectly on the quality of tourist offer. A recent example of illegal construction (halted only after substantial works have been completed) is a tourist complex on Zavala hill where investors planned to build a series of apartment villas and a hotel with 27 floors. Zavala hill (a small peninsula) is located between the two large beaches (Becici and Slovenska beach) in Budva municipality and was one of the last resorts in the area where quieter small beaches could have been used during the summer season in an otherwise overcrowded area.

Figure 2-9: Zavala hill, Budva: Construction of a tourist-apartment complex (March 2008)



Photo by Marina Markovic

In Tivat municipality (the smallest coastal municipality with the surface of only 45 km²), preparation of 6 studies of locations are ongoing, and the seventh one has already been completed (detailing urban solutions for a large marina and tourist centre at the site of former Ship Overhaul Institute). These locations are covering a major part of the seashore and are part of the public maritime domain (covered by the SP *Morsko dobro*) which in total accounts for 16% of municipal territory. Municipality does not have jurisdiction over planning in these areas, and it did not have a decisive influence in preparing the Terms of Reference for studies of locations. The guidelines given to planners in these Terms of References often do not set upper limits of capacities that can be projected (and if they do, it is questionable based on what criteria have they been set). Instead, the guidance is often that the planning should be done in such a way as to accommodate investors' demands. On the other hand, municipality is charge of planning support

functions for the entire area covered by urban plans (municipal ones and studies of locations). There is a risk that once built, the new facilities would exceed carrying capacity of the environment and overburden infrastructure that is only now being developed (e.g. sewage system planned for population of 21,000, the current population is 14,000).

A concern about the lack of integrated approaches and poor harmonization of plans has been voiced by a number of local level stakeholders during the interviews for Feasibility Study preparation. At the same time, a call for wider regional approaches in planning (e.g. in the case of Boka Kotorska) was made, especially for environmental protection issues (e.g. a proposal was made to develop a regional environmental action plan for Boka).

10. Application of tools and mechanisms for ICZM

Capacity for the application of ICZM tools is quite limited and in light of expected development trends, that represents another major challenge. For example, experiences with environmental assessments are limited, and there were no carrying capacity assessments to feed into the recent spatial or other planning processes. Planning processes have been predominantly based on sectoral approaches, and there were no attempts to carry out resource valuation studies and use them in decision making to make better informed choices. There is a large room for improvements with the application of economic/ market based instruments. A particular challenge will be definition of a setback line, as it may be perceived as a barrier for economic development.

Other identified issues and challenges are:

11. Protecting valuable marine and terrestrial ecosystems and cultural heritage;
12. Reducing pollution from land based sources (including waste, wastewater, industry);
13. Reducing pollution from maritime activities;
14. Formulating land use policy, etc.

2.4 Assessment of institutional structures and local/ national initiatives

Institutions (and their responsibilities) for costal zone management have already been described in the section 1.6 of this Study. In this section, the institutional framework is reviewed once again, this time briefly and from the aspect of CAMP implementation (having in mind the identified weaknesses and challenges for ICZM, as well as ongoing initiatives led by these institutions).

The most relevant institutions that are located in the coastal area and are performing their tasks in a part of or in the entire coastal zone are:

- PE *Morsko dobro* – managing the area designated as public maritime domain, has substantial capacities and a good experience and knowledge of the area (located in Budva);
- PEW-MC – an institution mandated to deal with regional water supply system, also has a rich experience in the region, valuable data and experience with implementation of WB projects (Budva);
- MBI – has the potential to provide scientific and research functions; even though it has limited technical/ financial capacities, the Institute has a long tradition in working with marine ecosystem, valuable human resources and ability to bring in the existing data (it is located in Kotor);
- Harbour Master’s Offices in Kotor and Bar and Maritime Safety Administration (Bar) are important institutions for the activities related to maritime transport. Harbour Master’s Offices have rich experience and substantial level of expertise. Maritime Safety Administration is in the process of developing its capacities.
- Regional Institute for the Protection of Monuments from Kotor – tasked with protection of cultural heritage

Local institutions

Local administrations perform their functions through a variety of secretariats, and their specific organisation may vary from one municipality to another. The most relevant for CAMP implementation are secretariats dealing with economic development, spatial and urban planning, communal affairs and environmental protection. Even though overall capacities may be assessed as weak, it is necessary to provide for their substantial involvement in CAMP activities to secure a more significant ownership over the integrated management of the coastal zone by local governments compared to what is the case with for example current management practices for public maritime domain. Parts of local administration are also very important as sources of local data and site-specific knowledge. Support of local governments is essential for CAMP implementation, and in the course of Feasibility Study preparations, each of the six municipalities has confirmed their interest to take part.

NGOs from the coastal zone (as well as the ones based in other parts of the country but with activities relevant for the coastal region) are important actors that can carry out a variety of activities to contribute to ICZM. They have developed substantial capacity over the course of the past years, are flexible and have potentials to contribute to a wide range of activities – from awareness raising to spatial planning and nature protection. However some of them have expressed concern that their activities are sometimes perceived as unfriendly by other stakeholders. Building partnerships between different actors will be necessary, since the overall capacities are rather limited.

On the national level, the key ministries and institutions that need to be involved in the CAMP are:

- MTE – both tourism development and environmental protection parts of its mandate are essential for CAMP;

- MED – spatial planning and urban development, which is a competence of this ministry, is of central importance for CAMP; MED is also competent authority for industry;
- MTMAT – responsible for development of all types of transport and safety on the sea;
- CER – monitoring institution, probably with strongest capacities in Montenegro (certified laboratories, ability to monitor a large number of parameters in all environmental media); has substantial sets of data;
- HMI – conducts environmental monitoring, hydrological and meteorological work; since recently, former Hydrographical Institute (nautical mapping) is part of the HMI;
- NPI – has expertise and important data on biodiversity.

A particularly relevant institution for the CAMP will be EPA, depending on the dynamics of its establishment and institutional building.

As for the coordination, existing mechanisms on the national level are National Council for SD (permanent body) and various Government *ad hoc* inter-ministerial groups (e.g. for tourism development, halting illegal construction, NS ICAM²⁹ and others).

Initiatives relevant for ICZM and CAMP have been described in the section 1.5 (with an overview in Annex 6) and are briefly referred to in the description of CAMP activities.

2.5 Global framework and nature of CAMPs and goals of CAMP Montenegro

CAMP is a MAP initiative aiming to introduce Integrated Coastal Area Management (ICAM) at local and national level, and to support institutional strengthening and capacity building. It is a collaborative effort between MAP and its Regional Activity Centres, notably the Priority Actions Centre (PAP), national and local authorities and international funding institutions. CAMP is based on the principles of sustainable development and integrated planning and management of the Mediterranean coastal areas.

According to the CAMP Operational Manual, the following documents and principles constitute global framework for Coastal Area Management Programmes:

- the principles adopted by the UN Conference on Environment and Development (UNCED) in 1992, as defined by the Rio Declaration;
- the UNCED Agenda 21 (in particular its Chapter 17 on protection of seas and coastal areas);
- Agenda 21 for the Mediterranean and the Tunis Declaration;
- the revised Barcelona Convention and MAP Phase II documents; and

²⁹ It is possible that the inter-ministerial group that was coordinating the process of preparation of NS ICAM will evolve into permanent coordination body for the Strategy implementation and ICAM.

- the methodology and tools of Integrated Coastal and Marine Areas Management, including PAP/ RAC Guidelines for Integrated Management of Coastal and Marine Areas with Special Reference to the Mediterranean Basin.

Among principles and policies recommended by UNCED documents, the following are particularly relevant for CAMP: the polluter pays principle; the precautionary principle; the participatory principle; application of integrative methodologies and tools for coastal management; capacity building; restoration and conservation of ecosystems whenever appropriate and affordable; solution but not transfer of causes and impacts; application of economic and market instruments for coastal management; and conflict mitigation.

On the EU level, policy framework relevant for CAMPs includes the ICZM Recommendation from 2002, the 2005 Marine Strategy, 2006 Green Paper on Future Maritime Policy of the Union, and 2007 Blue Book on Integrated Maritime Policy of the European Union.

The new protocol of Barcelona Convention – the ICZM Protocol – is another legal instrument that can be added to the list of documents and principles that make global framework for CAMP.

In respect to coastal zones management, the Mediterranean Commission on Sustainable Development (MCSDD) recommends improvements of mechanisms for institutional cooperation, introduction or improvements of legal and regulatory tools on national and regional levels, access to information and public participation (especially in decision making), establishing incentive measures for development and adoption of ICAM approach including pilot projects (such as CAMP) and development of public-private partnerships.

The Mediterranean Strategy for Sustainable Development (MSSD) also provides a basis for implementation of CAMPs by recognising the following priority problems for coastal zone management: degradation of protected coastal areas; pollution from land and sea; intensive fishery; controlling the urban sprawl; water resources management, etc.

With regard to individual Mediterranean countries, the role of CAMP is to assist them in:

- applying tools for and procedures of Integrated Coastal and Marine Areas Management within standard planning and management procedures and when implementing practical environment/ development related programmes and remedial actions;
- upgrading national and local capacities for a sustainable coastal management;
- solving real development and environment related problems in selected coastal areas;
- providing inputs to national development planning and implementation process; and
- creating preconditions for the formulation and implementation of rehabilitation/ development and/ or remedial plans and programmes.

On the national level, the framework for CAMP is primarily provided by the National Strategy for Sustainable Development and (draft) National Strategy for Integrated Coastal Area Management.

Starting from the framework and nature of CAM Programmes, the main goals³⁰ of CAMP Montenegro are:

- to help achieve sustainable development of coastal area;
- to support implementation of the national policies and ICZM Protocol;
- to promote integrated and participatory planning and management in the coastal area;
- to build national and local capacities for ICZM and raise awareness on the importance of coastal area, complexity and fragility of its ecosystems and on the need for integrated approaches in managing them; and
- to facilitate transfer of knowledge on ICZM tools and approaches.

3 The activities within CAMP Montenegro

Possible content of CAMP Montenegro was subject of discussions between MTE and MAP – PAP/ RAC in the period prior to initiation of this Feasibility Study. Some of the activities that were proposed in these discussions included: an analysis of the existing documents (plans, legislation, strategies, projects) and institutions; proposal of the institutional arrangement for the co-ordination/ management of coastal areas; water resources management; techniques and tools for ICZM; SEA for coastal areas; definition of the coast line/ setback zone; economic instruments; and demonstration plans on local level.

These ideas were the starting point for the Feasibility Study in identifying a list of possible activities to be carried out under CAMP Montenegro. They were further expanded based on the analysis of the existing situation in the coastal area and proposals that were put forward by different stakeholders.

Feasibility of a wide range of activities and their level of priority for CAMP Montenegro were then assessed based on the following set of criteria:

- significance (as expressed by different stakeholders);
- relevance for the implementation of national policies and strategies;
- national and local interest;
- compatibility with CAMP objectives and contribution to regional/ global processes;
- links with ongoing and planned projects and activities (possibilities to create synergies and possibilities for follow up activities).

³⁰ Specific objectives are defined for CAMP activities and presented in the following section.

Furthermore, experience with implementation of CAMPs in other countries and guidelines on the structure and activities of the Programme (as described in the PAP/ RAC's Operational Manual) were considered. As a result, the following six priority areas have been identified to be addressed by CAMP Montenegro:

7. Horizontal activities;
8. Institutional arrangements and coordination for ICZM and application of ICZM tools;
9. Establishment and management of protected areas (with special emphasis on marine protected areas);
10. Monitoring and information system;
11. Capacity building and awareness raising; and
12. Pollution control and reduction.

For individual priority areas/ CAMP components, the following questions are briefly elaborated:

- why it is important to address respective issues through CAMP Montenegro;
- what is the link with ongoing initiatives, plans and programmes;
- what are the objectives to be achieved through CAMP for respective component;
- possible activities to be carried out are listed, and respective outcomes described.

An estimate of financial resources needed to carry out proposed activities is presented in section 4.2.2.

1. Horizontal activities

CAMP Montenegro will include a number of cross-cutting activities with the objectives to ensure smooth project implementation, preparation of project documents and reports, coherence among different components, sustainability analysis, public participation and awareness raising, and similar. Under this component, the following two activities will be implemented:

- a) Project coordination; and
- b) *Imagine* methodology.

Horizontal activities (e.g. participation, capacity building and awareness raising) will be also conducted through other CAMP components.

Project coordination and management will be provided under the overall guidance of the PAP/ RAC and MTE as the lead national agency. On operational level, CAMP Montenegro will be coordinated through a project implementation unit and project coordinator (details on project coordination and relevant arrangements provided in the section 4.2).

The *Imagine* methodology for systemic and prospective sustainability analysis has been developed under auspices of the BP/ RAC and applied in a number of CAMPs implemented so far³¹. The methodology includes a set of tools and methods to describe, assess and examine the level of sustainability of a given environmental and socio-economic system in the past, present and future, by means of indicators and through a participatory process. *Imagine* comprises four stages, usually implemented in five workshops. It is an innovative method that relies on the following basic notions:

- Systemic approach that makes it possible to study the coastal area as a whole;
- Prospective and scenario methods to clarify present actions in light of future conditions;
- Sustainability indicators as reference points against which the sustainability of development can be assessed; and
- Participatory methods that rely on the expertise of local actors and give them the means to design and control their own management/ development.

Outputs from these activities will include an operational project implementation unit, employed project coordinator, and *Imagine* workshops and their outcomes (sustainability indicators and others). While ensuring for overall project coordination and providing for prospective sustainability analysis, outputs of this CAMP component will also be compatible/ synergetic with other CAMP segments and activities, in particular with monitoring and information system component – activity on development of sustainability indicators. Horizontal activities will be at the same time closely linked to sub-components 2.1 and 2.2 (described below) through contribution to public participation in planning and decision making.

2. Institutional arrangements and coordination for ICZM and application of ICZM tools

All of the so far analyses and strategic documents highlight that existing institutional arrangements for coastal area management are ineffective, and that coordination is not on a satisfactory level. It is also widely accepted that there are weaknesses/ gaps in the legal framework for coastal zone management and that implementation/ enforcement of regulations represents a problem. Consultations with stakeholders carried out in the course of preparation of the CAMP Feasibility Study have confirmed that these inadequacies exist and hamper formulation and implementation of adequate responses to manage high development pressures in the area.

Fragmented management and sectoral approaches that have characterised so far practices in the coastal zone have their roots in the existing regulations and poor vertical and horizontal coordination. For example, the Law on Public Maritime Domain focuses only on a narrow coastal strip, excising it (in planning and management senses) from the adjacent areas and making integrated planning more difficult/ impossible. Coordination in planning and managing coastal area between national and local level has not been satisfactory – there is a strong need to increase local level capacities and ensure that their

³¹ Including Algeria, Cyprus, Lebanon, Malta, and Slovenia.

positions are represented in the decision making process, while ensuring at the same time that planning is not only based on narrow local perspectives and interests. Environmental protection issues have not been adequately integrated and have not played a role they should have in either the planning phase or in the phase of execution of plans. It would be necessary to change this in order to provide for (at some locations already imperilled) integrity of coastal ecosystems.

Both national strategies (NSSD, draft NS ICAM) and ICZM Protocol call for changes in the existing institutional set up and legal framework to ensure integrated approaches in managing coastal area. The ICZM Protocol prescribes that it is necessary to "...ensure institutional coordination, where necessary through appropriate bodies or mechanisms, in order to avoid sectoral approaches and facilitate comprehensive approaches." NSSD calls for a change of the Law on Public Maritime Domain or adoption of a new Law on Coastal Zone, and creation of an institutional framework (institution, agency or similar) for the implementation of new regulations and ICZM Strategy. NS ICAM foresees establishment of a permanent coordination body for ICAM Strategy, and sees PE *Morsko dobro* as an expert/ professional body to support the work of MED and of the coordination body. It also calls for defining ways and principles of cooperation and coordination between different institutions and stakeholders, and calls for establishment of a forum of local stakeholders (entrepreneurs, NGOs and other civil sector stakeholders).

Experience with application of integrated planning and management approaches and sustainable development instruments is rather limited in the coastal area of Montenegro. For example, experience with preparation of integrated, ecosystem based management plans is very limited, and there has been no experience with carrying capacity assessments. On the other hand, the ICZM Protocol is strongly focused on the application of carrying capacity concept in planning. The new SEA law has come into effect recently; some experiences with the strategic assessment have been gained, and some SEA processes are ongoing. EIA has been required since 1997, but due to some deficiencies in the previous legislation, adequate capacities were not developed. The use of economic instruments for the achievement of environmental objectives is still underdeveloped. Some of the legally prescribed pollution charges are not implemented. Those environmental taxes and charges that have been implemented are not adequately reflecting the polluter or user pays principle. On the other hand, there is a favourable strategic framework for integrated management and sustainable development, and there is a growing number of new laws (harmonised with the EU acquis) which at their core have integrated approaches.

The past and ongoing initiatives that are particularly relevant for this component of CAMP include drafting of new legislation, forthcoming ratification of the ICZM Protocol, adoption of strategies and action plans/ their revision, SEA processes that are underway or will be carried out for the development of spatial plans (e.g. for studies of locations in the public maritime domain zone), PlanCoast project for Boka etc.

This component of the CAMP Montenegro is divided in two sub-components:

Institutional arrangements and coordination; and
Application of ICZM tools.

Objectives of the CAMP Montenegro sub-component 2.1. are to support and facilitate changes of the existing institutional framework and to help putting in place a multi-stakeholder yet cohesive and effective institutional structure for integrated coastal zone management.

Activities to be carried out under this CAMP sub-component are:

- a) Support in establishment and operation of a multi-stakeholder (with representatives of all relevant stakeholders) forum with a role to provide guidance for formulation of coastal zone plans and policies; and
- b) Preparation of a model for institutional structure for coastal zone management (possibly through further elaboration of coordination mechanisms in line with what is envisaged under the NS ICAM, possibly through establishment of new/ restructuring of existing institutions) with a view to ICZM Protocol requirements and based on examples of good practice in integrated management of natural resources; the activity will also include support for making the proposed institutional structure operational.

Outputs from these activities will include an operational coastal zone forum and an agreed model of institutional structure with defined responsibilities and allocated resources. The proposed institutional structure will become operational in the course of implementation of other CAMP activities and will contribute to achievement of the overall Programme goals.

Objectives of the sub-component 2.2 are to support application of ICZM tools and approaches through the specific planning processes and analyses in the coastal area, developing at the same awareness and raising capacities of national and local stakeholders for integrated management. This will be achieved through ‘learning while doing’ approach i.e. through capacity building for the application of ICZM tools during concrete work on elaboration of some plans, programmes or projects at the Montenegrin coast. In this sense, sub-component 2.2 and the activities to be implemented within it are related to the CAMP component 5 – Capacity building and awareness raising (in particular to the activity 5.a that is described below).

There is a wide range of forthcoming plans, programmes and projects that could be used to demonstrate application of ICZM tools and raise capacities. Some of these are envisaged under the National Spatial Plan or NS ICAM while others will be carried out as a part of regular work of different institutions.

One of the NSP objectives for maritime transport is definition of waterways for international navigation in a way that will not cause negative impacts on marine ecosystems, areas protected to preserve nature and cultural heritage, and areas designated for nautical tourism. The Plan also calls for evaluation of environmental capacities and spatial sensitivity of Montenegro, with elaboration of *a map of ecological potential of Montenegro*. NS ICAM envisages preparation of a programme for development of golf

terrains, and SP *Morsko dobro* is working on a programme for expansion of beach areas. A number of projects for development of large tourism complexes in less developed zones is either underway (e.g. Velika plaza) or could be expected in the near future. Development of roads (Adriatic speedway) and bridge over the Bay of Boka is also planned for the coming period

Application of ICZM tools (such as carrying capacity for a given area, SEA for certain plans or programmes) will be supported through this component. At the same time, integrated planning will be demonstrated and incorporated into specific planning processes, primarily through support for the development of integrated coastal zone management plan.

Proposed activities for the sub-component 2.2 are:

- a) Preparation of ICZM Plan;
- b) Definition of waterways while taking into account other sea uses (including nature and otherwise protected areas, nautical tourism);
- c) Supporting planning processes in the coastal area by undertaking a carrying capacity or strategic environmental assessment for a selected project/ plan;
- d) Analysis of existing economic instruments and proposal of new ones that could help achieve environmental improvements in the coastal area.

Preparation of the ICZM Plan will be the main activity of CAMP Montenegro and a vehicle for putting into practice integrated approaches and new institutional/ coordination mechanisms. The plan will further operationalise the measures and guidelines envisaged under NS ICAM, with the overall objective to balance existing and prospective pressures and conflicts in an environmentally sound and sustainable way, based on informed choices.

Outputs of this sub-component will include draft ICZM plan, waterways plan, a study on the potential use of economic instruments in the coastal area and a carrying capacity/ environmental assessment for a selected project/ programme.

3. Establishment and management of protected areas (with special emphasis on marine protected areas)

There are currently no marine protected areas (MPAs) in Montenegro. Their establishment is planned under the national strategies and as a way of implementation of Barcelona Convention's Biodiversity Protocol³². As for terrestrial ecosystems, some levels of protection exist for a number of locations along the coast (see section 2.2.2) under the existing legislation. The Nature Protection Law is now being revised and harmonised with the EU legislation. Transposition of EU regulations on nature protection will bring on the agenda Natura 2000 network and the need to protect important habitats and bird areas in the coastal zone. Establishment of PAs (and their proper management)

³² UN Convention on Biological Diversity (ratified by Montenegro) also constitutes legal basis for MPAs establishment.

in the coastal zone is very important as a way of ensuring that valuable biodiversity and ecosystems are protected from exacerbated development pressures and preserved for future generations.

Some work on identification of ecologically valuable areas has been done under Emerald project and through other initiatives, and a goal of protecting at least 10% of the coast (including designation of MPAs) has been set by the NSSD. Sustainable development strategy provided a list of areas that should be considered for protection/ protected, which has been reaffirmed in the draft NS ICAM. Based on these activities and policies, Tivat's Saltpans have been designated as a protected area in 2007, and there is an ongoing World Bank project a component of which will lead to designation of protected area/s in Bojana Delta. It is important to note that the existing proposals for protected areas (land and sea) have not been recognised in the recently adopted spatial plans - special purpose area public maritime domain plan and national spatial plan³³. A forthcoming activity that is particularly relevant for this proposed component of CAMP Montenegro is an assessment of proposed MPAs that will be conducted in cooperation with SPA/ RAC in 2008.

The objectives of this component of CAMP Montenegro are to finalise the process of establishment of the first MPAs in Montenegro and to help improve the PA management. An overall goal is to help preserve valuable biological and ecosystem diversity of the Montenegrin coast, thus contributing to the Mediterranean and global processes of biodiversity conservation.

Specific activities to be implemented under this CAMP component are:

- a) Based on the findings and recommendations of assessment/ feasibility studies that are going to be prepared for Platamuni, Katici islands and Old Ulcinj island, steps that precede the designation of MPAs will be carried out, such as consultations with stakeholders and preparation of background analysis, promotion of MPAs and explanation of benefits from them etc; final steps will be formal designation of MPAs and their recognition in the relevant plans.
- b) Preparation of management plan for Tivat Saltpans protected area.

In case there is a change in conditions compared to what can be foreseen now, rendering some of the above unnecessary, CAMP Montenegro will to the extent possible support preparatory activities for the MPAs management plan (for example sea mapping and similar kind of activities). Outputs of this component will include socio-economic analysis for the establishment of MPAs, consultative workshops, PA management plan (possibly sea maps for the areas in the vicinity of MPAs).

³³ Regarding specific locations for protection in the coastal area, National Spatial Plan includes proposals to expand UNESCO's site of Kotor - Risan Bay to southern slopes of Vrmac hill, and possibilities to declare Rumija mountain as a regional park (within Orjen – Lovcen – Rumija ecological corridor).

4. Monitoring and information system

The existing information on the state of the environment in the coastal zone (from regular monitoring programmes, seasonal monitoring of bathing water quality, and from *ad hoc* analyses, research projects etc.) do not allow for a comprehensive assessment of the quality of sea water and coastal/ marine ecosystems nor for comparability and identification of trends. The value of these data for decision making is therefore quite limited. Furthermore, the existing data are scattered through different institutions, and are often not easily available and retrievable. It can be said that the information system on the sea and coastal area does not exist, which undermines prospects for integrated management. Sustainability indicators are not defined and monitored, which leaves more space for sustainable development debates to be rather speculative and prone to different subjective views and interpretations.

In 2008, MET has taken a significant step to expand the existing monitoring programme in line with MED POL methodology. Monitoring institutions have over the years worked on developing their capacities, *inter alia* through participation in international research and monitoring initiatives (such as, for example, ADRICOSM-STAR). The need to provide for a continuous monitoring of oceanographic, physicochemical, biological and other parameters of the sea and coastal area has been recognised by the NSSD, together with a need to establish a GIS data base for collected (and existing) data. Further development of the monitoring and information system and its alignment with the EEA requirements is necessary in light of fulfilment of the country's EU Accession goals. NS ICAM also recognises the need to develop the sea and coastal area information system, and the National Spatial Plan emphasised the need to improve availability and organisation of data relevant for spatial planning (including the use of GIS).

In following up on the initiated activities related to monitoring of the sea and coastal area, the objective of the monitoring and information system component of CAMP Montenegro is to further strengthen monitoring and set up a basis for coastal area information system, working towards a longer-term goal of developing an adequate information basis for integrated management and sustainable development of coastal zone.

The following activities will be carried out:

- a) Support for further development of the monitoring programme to bring it in line with MED POL and EEA requirements, by strengthening human capacities of monitoring institutions (in particular of MBI and HMI) through transfer of knowledge and training.
- b) A plan will be prepared outlining components, phases, responsibilities and necessary resources for development of an integral information system (data storage, retrieval and use for different type of analyses and reports) for the sea and coastal zone. The plan will focus on environmental data but will be elaborated with a view to possibilities to correlate this data with spatial³⁴, socio-

³⁴ National Spatial Plan envisages establishment and maintenance of information system on space in cooperation between national and local level institutions.

economic and other data. The plan will identify the existing sources of information, data gaps and the ways to overcome them. Particular attention will be paid to possibilities for GIS application. Data from the information system will be widely available to all the interested parties and used for reporting.

- c) Following up on the results of *Imagine* methodology, a set of 3 – 5 sustainable development indicators³⁵ applicable to Montenegrin coastal zone will be identified, and their regular calculation ensured (through necessary revisions in the monitoring/ data collection system and by assigning responsibilities for deriving them).

In developing and carrying out these activities, a particular attention will be paid to coordination with EPA (once it is established). Expected outputs include provided training for staff in monitoring institutions/ provided guidance on further development of the monitoring system, and plans for development of information system and sustainable development indicators.

5. Capacity building and awareness raising

Capacity of national and especially of local institutions to implement new policies and undertake integrated planning and management is weak, and it is therefore very important that CAMP Montenegro addresses this issue. Furthermore, general level of awareness on the importance of ICZM can be described as unsatisfactory. Information on the value of natural resources in the coastal area and necessity to manage them in a sustainable way is not communicated to the public in an organised way. Research results and available information on the threats from unsustainable development patterns are not present in the public in the scope that could lead to changing perceptions and behaviours. Exceptions to the described situation are various projects implemented by specialised institutions and NGOs/ other civil sector organisations.

The main objectives of the CAMP activities proposed under this component are to increase capacities of different institutions to understand, apply and use different ICZM instruments for sustainable development, and to raise awareness on the importance of sustainable management in the coastal area, promote ICZM and respective Barcelona Convention Protocol, and decrease resistance to some ICZM instruments that could be perceived as an obstacle to development.

These objectives will be achieved through seminars, training and other forms of exposure of different target groups (priority should be given to local level institutions) to information on ICMZ tools and techniques, and through an awareness raising campaign. In building capacities for the ICZM tools, CAMP will be well-positioned to promote integration of climate change impacts into the planning and development policies.

³⁵ ICZM Protocol, for example, calls for definition of “...indicators of the development of economic activities to ensure sustainable use of coastal zones and reduce pressures that exceed their carrying capacity.”

With the above in mind, the activities proposed to be carried out under this CAMP component are:

- a) Provision of training, primarily for local level institutions (possible topics will include, but are not limited to: ICZM; CCA; SEA; economic instruments; resource valuation techniques, cleaner production; and integration of climate change issues into planning); implementation of this activity will support activities planned under the sub-component 2.2; and
- b) Awareness raising campaign (including promotion of ICZM Protocol through NGOs work, website, publications, organisations of events such as Coast Day³⁶ etc.).

Expected outputs of this component will include training on ICZM tools and a communication/ public awareness campaign. The campaign will focus on the implementation of ICZM Protocol and will address general population, with a special subset of activities for youth. The campaign should be designed and implemented by institutions involved in environmental protection, NGOs/ other civil sector organisations and media. Cooperation with/ within MIO-ECSDE network could be utilised to this end. Under this component, CAMP Montenegro website will be set up, and other information/ promotional materials will be published. The campaign will also include organisation of events such as the Coast Day, to link CAMP Montenegro awareness raising activities to ongoing initiatives in the Mediterranean.

6. Pollution control and reduction

According to the existing information, pollution is a serious problem in some coastal/ marine areas. Urban wastewaters and waste, industry and maritime activities have been identified as the main causes and contributors to this problem. NAP (to address land based sources of pollution) has been prepared, and there are ongoing projects to reduce pressures from wastewater and waste. Some steps have been undertaken to address operational pollution from vessels, ports and shipyards, and adoption of a contingency plan (to respond to accidental pollution from vessels) is imminent.

As a part of a phased approach to reduce pollution from wastewaters, several projects are currently being implemented encompassing reconstruction or expansion of municipal sewerage systems and rehabilitation of pumping stations. For the next phase, construction of wastewater treatment plants is envisaged. As already discussed, the Bay of Boka is considered as an area where pollution problems are particularly pronounced due to, among other things, density of settlements and urban centres along its shores and the enclosed nature of the bay. Current reconstruction and expansion of Kotor municipal sewage system (which will collect wastewaters to be treated at a future plant) does not cover northern stretches of the Bay's coast with the towns of Perast and Risan. Given the

³⁶ The first Coast Day for the Mediterranean was organised in 2007. This event aims to raise awareness of policy makers and the public of the value of the coast, as well as of the importance of applying an integrated approach to planning and management of the coastal zone. More information available from <http://www.coastday.org/>

expressed interest of MTE to include into CAMP some concrete initiatives aimed at controlling and reducing pollution and the existing situation in the Bay of Boka, it is proposed that the following activity is carried out under this CAMP component:

- a) Preparation of feasibility studies and EIAs for Perast and Risan (Kotor municipality) wastewater treatment solutions.

This activity will provide project documentation necessary to identify and eventually implement adequate wastewater treatment solutions for the two mentioned towns. Depending on the outcomes of feasibility studies, MTE is interested in providing financial support for the WWTPs, which would contribute to longer-term sustainability of CAMP activities. The project documentation can also facilitate efforts to leverage additional funds to improve environmental infrastructure at this part of the coast.

4 Justification for the CAMP Montenegro

4.1 Arguments in favour of CAMP Montenegro

The coastal area of Montenegro is an area with high development potential where there are complex relations between human activities and natural environments and pronounced pressures on natural resources. In order to preserve the development potential, primarily through preservation of resource base of the area and qualities of the natural and manmade environments, it is necessary to provide for integrated approaches in planning and in managing the coastal area.

The concept of ICZM is embedded in a number of policies and strategic documents in Montenegro. The country is committed to sustainable development, and has adopted National Strategy for Sustainable Development in line with the Mediterranean Strategy of Sustainable Development and the UN Commission on Sustainable Development recommendations. National Strategy for Integrated Coastal Area Management will be adopted in the first half of 2008. Montenegro has ratified Barcelona Convention and four of its 'older' protocols, and in January 2008, the ICZM Protocol has been signed (with intention to ratify it in 2008). Notwithstanding high level of commitment to sustainable development in the coastal area, there is an apparent need for further capacity building, training and awareness raising on ICZM.

The main strategic orientation of the country is accession to the EU, and there is ongoing process of harmonisation of national legislation with the EU *acquis*. Integrated management concepts and tools are thus being increasingly incorporated into the national legal framework.

In parallel, there are ongoing efforts to increase capacities of institutions to implement new legislation and sustainable development policies, and a large number of initiatives relevant for ICZM is being implemented or planned. The existing institutional

framework, even though with pronounced weakness in respect to coordination and overall capacities, has substantial strengths and potentials for ICZM. Interest for CAMP implementation was expressed both at national and local level.

With the above in mind, the main arguments in favour of CAMP Montenegro are:

- there is a high level of commitment to sustainable development of the coastal area;
- policy framework is favourable for the implementation of CAMP Montenegro, and the same increasingly applies to legal framework;
- the existing institutions can provide necessary structures for CAMP implementation, and there is an interest for the Programme both on national and local levels;
- CAMP can play an important role in creating conditions for integrated and effective management in the coastal area of Montenegro.

4.2 Organisation of CAMP Montenegro

4.2.1 Arrangements for CAMP implementation and national/ local institutions role

Following the approval of the Feasibility Study by the Government of Montenegro/ MTE, the next steps for the organisation of CAMP Montenegro will be carried out according to the CAMP Operational Manual and with the dynamics outlined in the Figure 4-1. In the initiation stage, Terms of Reference will be drafted and contacts made with different donors (both by MAP and Montenegrin Government). In the formulation stage, Project Agreement will be signed between MAP – PAP/RAC and the MTE (possibly MoUs with other participating donors will be signed as well). Detailed formulation of the CAMP activities will be done through an inception report, and prerequisites for implementation will be fulfilled. Prior to the actual implementation, a progress report on the activities carried out in the first two stages will be made.

For the CAMP implementation, national and/ or local institutions will have a role in management arrangements for the CAMP and in implementation of different activities.

The National Lead Agency for CAMP Montenegro will be the Ministry of Tourism and Environment. As the National Lead Agency, MTE will have overall responsibility for CAMP formulation and implementation, in coordination with other stakeholders and sectoral Ministries, in particular with the Ministry for Economic Development. A Steering Committee will be established comprising the key stakeholders for the CAMP to oversee the process. MAP National Focal Point will act as a Project Director with main responsibilities to coordinate and guide CAMP process and chair the Steering Committee sessions. In this work, Project Director will be assisted by the MTE staff.

Part of the operational and project management tasks for CAMP which will be responsibility of Montenegrin institutions will be executed through a Project Implementation Unit (PIU) and Project Coordinator. Project Implementation Unit could be established in one of the two following institutions:

- PE *Morsko dobro*; or
- PEW-MC (Public Enterprise for regional water supply).

Both institutions are located in Budva, which would provide for easy access to all the parts of CAMP area and have the capacity to provide necessary logistic support (premises, communication lines and similar). PIU and Project Coordinator will work in close collaboration with the MTE as the National Lead Agency.

Implementation of CAMP activities is usually done through:

- Exchange of knowledge and experience;
- Joint work of local and international experts;
- Involvement of MAP RACs;
- Integration of activities and policies on concrete problems in coastal areas;
- Application of integrated tools and methodologies cutting across institutional, thematic and spatial levels.

CAMP Montenegro activities should be carried out in a close co-operation between international (provided by MAP-PAP/RAC) and local experts, possibly in the form of twinning. Local experts would provide knowledge on local problems and most appropriate solutions to safeguard the local interests, while international experts would bring in an impartial evaluation of the problems, contemporary approaches to solving the problems and good international practices.

4.2.2 CAMP budget

Following the identification of activities for CAMP Montenegro, an attempt was made to cost them and to assess what share of the overall costs should come from national sources (through cash and in kind contributions). The results are presented in the Table 4-1.

Total proposed budget for CAMP Montenegro is € 456,000. Out of this amount, MAP contribution will be € 177,000. National contribution to CAMP financing will be € 279,000, out of which 23,000 will be in kind contribution (provision of premises, staff time and data). MTE will provide a predominant share of national financing – the amount is estimated at € 240,000, while the remaining funds will come from other relevant ministries and local budgets.

Table 4-1: Proposed budget for CAMP activities (in €)

Activities	Total by activity	National contribution		MAP's contribution	RACs involved
		Cash	In kind		
1.a Project coordination	78,000	-	6,000	72,000	PAP/ RAC
1.b <i>Imagine</i> methodology	20,000	3,000	2,000	15,000	BP/RAC
2.1.a Coastal forum	20,000	10,000	2,000	8,000	PAP/RAC
2.1.b Model of institutional structure for ICZM, support to improved institutional arrangements	19,000	14,000	-	5,000	PAP/RAC
2.2.a Draft ICZM Plan	45,000	30,000	3,000	12,000	PAP/RAC
2.2.b Definition of waterways	30,000	23,000	-	7,000	REMPEC
2.2.c Support to planning processes (application of CCA, SEA or similar) to a selected plan/ programme	30,000	25,000	-	5,000	PAP/RAC
2.2.d Study on EIs	10,000	6,000	-	4,000	PAP/RAC
3.a Designation of MPAs	20,000	13,000	2,000	5,000	SPA/ RAC
3.b PA management plan for Tivat Solila	24,000	13,000	2,000	9,000	SPA/ RAC
4.a Support to further development of monitoring programme (training)	7,000	4,000	-	3,000	MEDPOL
4.b Plan for an integrated information system on coastal zone	20,000	12,000	-	8,000	PAP/RAC
4.c Development of sustainable development indicators	15,000	9,000	-	6,000	BP/RAC
5.a Training (ICZM, CCA, SEA, EIs, CP) focused on local level	24,000	14,000	2,000	8,000	CP/RAC, PAP/RAC
5.b Awareness raising campaign	30,000	20,000	-	10,000	PAP/RAC
6.a Feasibility studies and EIAs for Perast and Risan wastewater treatment solutions	64,000	60,000	4,000	-	-
TOTAL	456,000	256,000	23,000	177,000	

4.2.3 Timetable for CAMP Montenegro

Proposed timing of CAMP stages and particular steps within these stages is shown in the Figure 4-1.

Figure 4-1: Timing of CAMP Montenegro

	2008		2009		2010		2011
	1 st half	2 nd	1 st	2 nd	1 st	2 nd	1 st
<i>Initiation stage</i>							
Preparatory activities: project structure and Terms of Reference							
Preparatory activities: contacting donors and other potentially participating organisations							
<i>Formulation stage</i>							
Signing of the agreements (Project Agreement, MoU with donors)							
Detailed formulation – inception report							
Meeting the prerequisites for implementation							
Progress report							
<i>Implementation stage</i>							
Initial implementation activities							
Implementation phase							
Integration of project results							
Presentation conference							
<i>Follow up</i>							
Definition of a follow up programme							

4.3 The role of MAP in CAMP Montenegro

MAP is one of the Regional Seas Programme of the United Nations Environment Programme, with MEDU coordinating unit acting as its secretariat. Within MAP, there are MED POL Programme (for the assessment and control of pollution) and Regional Activity Centres (RACs)³⁷ with different areas of expertise

Apart from standard activities of MAP in CAMP projects, such as general logistic, expert and financial support (preparation of ToRs, preparation of project agreement, meeting prerequisites for implementation, providing consultants for project activities, preparing reports, etc), MAP’s role in the initiation stage of CAMP Montenegro could also include activities aimed at raising additional funds from international donors, in particular the

³⁷ Including Priority Actions Programme (PAP), Blue Plan (BP), Clean Production Centre (CP), Information and Communication Centre (INFO), Specially Protected Areas (SPA), and Regional Marine Emergency Response Centre (REMPEC).

ones with which MAP usually cooperates in the implementation of projects and programmes for integrated coastal area management.

The coordinating unit of MAP (MEDU) will act as the overall international project coordinator and will be responsible for exercising guidance and supervision over the CAMP Montenegro implementation, in cooperation with the Ministry of Tourism and Environment as the National Lead Agency. PAP/RAC will assume operational tasks for coordination, guidance and implementation of the CAMP, in cooperation with Project Director and Project Coordinator on the Montenegrin side. PAP/RAC will also coordinate the activities of the other RACs that will be involved in the CAMP Montenegro. The involved RACs will provide, in coordination with PAP/RAC and in cooperation with the relevant national authorities, specific expertise to support implementation of CAMP activities. Expected involvement of RACs in different CAMP Montenegro activities is indicated in the Table 4-1.

Annex 1 – List of references

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Ministry of Economic Development and PE *Morsko dobro*, Spatial Plan of the Special Purpose Area Public Maritime Domain, Kotor – Podgorica, 2007

Ministry of Economic Development, National Spatial Plan of Montenegro until 2020, Podgorica, 2008

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UNEP/MAP/PAP, White Paper: Coastal Zone Management in the Mediterranean, Split, Priority Actions Programme, 2001

USAID, Biodiversity Assessment Update for Serbia and Montenegro, 2005

World Bank, Project Appraisal Document for Montenegro Sustainable Tourism Development Project (May 2007)

Annex 2 – List of documents and availability of maps relevant for CAMP Montenegro

The most relevant documents for CAMP Montenegro

1. National Strategy of Sustainable Development (2007)
2. Draft National Strategy for Integrated Coastal Area Management (2008)
3. Spatial Plan of the Republic of Montenegro until 2020 (2008)
4. Spatial Plan of the Special Purpose Area Public Maritime Domain (SP *Morsko dobro*) (2007)
5. National Report on Status, Problems and Preservation of Marine and Coastal Biodiversity in Montenegro (2004)
6. National Action Plan for Reduction of Pollution from Land Based Sources (2005)
7. Master Plan for Water Supply for Coastal Region of Montenegro and Cetinje (2006)
8. Master Plan for Collection and Treatment of Wastewater of the Coastal Region and Cetinje (2003)
9. Strategic Master Plan for Waste Management on the Republic Level (2005)
10. Master Plan – Strategy for the Development of Tourism in Montenegro until 2020 (2002; also the 2008 revision, when adopted)
11. Montenegrin Agriculture and the EU – Food Production and Rural Development Strategy (2006)
12. Management Plan for the UNESCO’s World Natural and Cultural Heritage Site Kotor – Risan Bay (2007)
13. Local Environmental Action Plans for Herceg Novi, Kotor and Budva
14. Municipal spatial plans and general urban plans

Availability of maps

Institution	Map	Availability
PE <i>Morsko dobro</i>	<p>Maps contained in the Spatial Plan of Special Purpose Area Public Maritime Domain (Annexes to the Plan):</p> <ul style="list-style-type: none"> - Excerpt from the Spatial Plan of Montenegro (1:100,000) - Excerpts from the municipal spatial plans (1:25,000) - Excerpts from municipal general urban plans (1:25,000) - Existing state of the use of public maritime domain (1:25,000) - Existing technical infrastructure (1:25,000) - Synthesis of issues and potentials of the coastal region (1:100,000) - Planned developments for the coastal region (1:100,000) 	Available

	<ul style="list-style-type: none"> - Zones and functional units of public maritime domain (1:100,000) - Planned land uses for public maritime domain surfaces (1:25,000) - Planned technical infrastructure (1:25,000) - Nature protection and use regimes (1:25,000) - Maps with 68 sections of public maritime domain (1:10,000) 	
PE Regional Water Supply	<ul style="list-style-type: none"> - Satellite map (1:100,000) - Digital topographic map (1:25,000) - Digital topographic map (1:50,000) 	Maps owned by the PE; depending on the intended use, could be available for free
Maritime Safety Administration	Nautical maps (printed maps)	10 – 60 € per map
UNDP GIS unit	Digital terrain model of the coastal area, other GIS-ed data	Freely available
Real Estate Administration	Development of digital maps for the whole territory of Montenegro is under way	Should become freely available as of the end of 2009

Annex 3 – Map of the coastal area

(provided as a separate file)

Annex 4 – List of persons met

Abedin Avdiu, Ulcinj Municipality
Dželal Hodžić, NGO Green Step
Aleksandra Ivanović, Public Enterprise Morsko dobro
Predrag Bjelobrković, Public Enterprise Regional Water Supply for Montenegrin Coast and Cetinje Municipality
Biljana Gligorić, NGO Expeditio
Marija Nikolić, Municipality of Tivat
Ana Popović, Municipality of Budva
Sanja Marinović, Municipality of Budva
Safet Luković, Municipality of Kotor
Jelena Vuković, Municipality of Kotor
Aleksandar Joksimović, Marine Biology Institute
Vesna Mačić, Marine Biology Institute
Vlado Mračević, Municipality of Herceg Novi
Obrad Gojković, Port of Herceg Novi
Đuro Pešikan, Shipyard Bijela
Antonela Rajčević, NGO European Home Tivat
Nikola Drakulović, Harbour Master Office Kotor
Gojko Ljesar, Harbour Master Office Kotor
Vasilije Bušković, Nature Protection Institute
Zdenka Ivanović, Water Administration
Slavica Pavlović, Ministry of Agriculture, Forestry and Water Management, Fisheries Department
Goran Jurišić, Harbour Master Office Bar
Đuro Karanikić, Bar Municipality
Avni Aručević, Bar Municipality
Milo Mrkoč, Bar Municipality
Zoran Nikitović, Hemosan Company Bar
Snežana Marstijepović, Port of Bar
Dejan Novović, Port of Bar
Pavle Đurašković, Hydro-meteorological Institute of Montenegro
Ana Jovetić, Ministry of Economic Development, Sector for Spatial Planning
Snežana Đurković, Ministry of Transport, Maritime Affairs and Telecommunications, Sector for Maritime Affairs
Ana Katnić, Skadar Lake National Park
Robert Aleksić, UNDP Montenegro, GIS Unit
Danijela Šuković, Centre for Eco-toxicological Research
Jelena Knežević, Ministry of Tourism and Environment, Sector for Environmental Protection
Ferdinand Wieland, Ministry of Tourism and Environment, Sector for Tourism

Note: Additional information acquired through phone interviews, email communication (e.g. with Ružica Ivanović, Regional Institute for Protection of Cultural Monuments) and from the presentations and discussions of the 2nd Round Table on the Protection and Sustainable Development of Montenegrin Coast, Kotor, February 2008

Annex 5 – Terms of Reference for the Feasibility Study

1. Background Information

Coastal Area Management Programme (CAMP) is being implemented by the Mediterranean Action Plan (MAP) since 1989. CAMP projects have been implemented in a number of Mediterranean countries. The main objective of the MAP CAMP is to offer assistance, based on its expertise, knowledge and experience to the Mediterranean countries in solving urgent environmental problems, and to introduce the integrated coastal zone management (ICZM) as the basic tool to achieve sustainable development at the selected sites in their coastal regions. All MAP centres have been involved in the hitherto implementation of CAMP projects.

The Contracting Parties to the Barcelona Convention, at their 14th Ordinary Meeting, 8-11 November 2005 in Portoroz, Slovenia, approved the decision to carry out a CAMP project for Montenegro. The decision to start with the initiation of the CAMP Montenegro was discussed with the representatives of the relevant Montenegrin institutions at the meeting in Split on 18-19 December 2006. In the months that followed all the preparatory activities were undertaken in order to start the preparation of the Feasibility study. The study should achieve the following objectives:

- inspect the existing strategic, policy and institutional context encompassing the area where the CAMP activities could be carried out;
- define the area for CAMP;
- collect and present the available relevant information on the strategic, policy and institutional context at the national level and at the level of the study area;
- define the possible activities from the point of view of the national and local interests;
- assess the international context where CAMP Montenegro could be implemented;
- assess the possibilities for the implementation of the CAMP; and
- assess the possibilities for a long-term sustainability of the project.

2. Job Description

On the basis of the exclusive use of existing information, the consultant will do the following:

2.1 General context

In this section, the consultant has to describe Montenegrin institutional and political context, and prove that these conditions are favourable for the CAMP implementation. The consultant has to do the following:

- Make a survey of the existing information related to the integrated coastal zone management in Montenegro and in particular to ICZM in the coastal regions of the country.
- Inventorise and present summary of the past, on-going and planned projects, plans and programmes in Montenegrin coastal areas, with particular reference to the initiator of the initiative (local, national or international); local and national partners; title of the initiative; the coastal area concerned; brief contents; approximate cost; current status of the project; and the follow-up of the projects which have been completed. The above information shall be provided in the form of a table/matrix.
- Present national strategies and policies relevant to the sustainable development of the coastal area of Montenegro. The consultant will have to explore the policies, strategies and priorities

not only of the Ministry of Tourism and Environment of Montenegro (MOTE), but also of other relevant ministries (planning, agriculture, transportation, energy, water resources, forestry, etc.) whose activities are part of or are touching upon the sustainable development of the coastal areas.

- Present the institutional structure at the national and local levels dealing with the coastal management issues.
- Summarise the legislative issues related to the ICZM and the effects of its implementation in general, and especially provisions that require comprehensiveness when dealing with developmental and environmental issues, principles of integrated management and public participation.

2.2 Proposal of the CAMP area

The area to be studied by this Feasibility study will be the whole coastal zone of the Republic of Montenegro and related areas in the hinterland. On its basis, an area where it is expected in the near future that some development pressures will rise, and any proposal today might help the future actions remain within the limits of sustainable development, will be selected as a CAMP area. Therefore, it is expected, that the CAMP Montenegro will be more of a preventive than curative nature, although the latter actions should not be excluded from the CAMP proposals. The consultant is expected to do the following:

- Provide the geographical description of the area proposed for the CAMP.
- Summarise the socio-economic and environmental context of the proposed area. The issues should be divided into resources (natural, man-made), activities (agriculture, forestry, industry, energy, urbanisation, transport, tourism, etc.), effects of activities on the environment (pollution, resource exploitation, negative physical effects, resulting development patterns, etc.), and an assessment of development trends in the future.
- Describe and assess the existing local institutional structure to deal with ICZM issues. All actors (including NGOs and other organisations) should be investigated, and their capabilities to carry out or participate in the CAMP should be assessed thoroughly.
- Investigate other locally or nationally generated initiatives related to coastal zone management, urban and regional planning, resource management, institutional development, etc. Coastal plans and programmes, land-use plans, local policies and strategies, capacity building initiatives, etc. should be analysed and presented, and their possible utilisation in the project shall be assessed. The information collected will have to be presented in the form of a table/matrix.
- Outline the objectives, as well as the global framework and nature of the CAMP Montenegro. The consultant should concentrate on the description of nature of collaboration of local, national and international experts with local municipalities.

2.3 The activities within CAMP Montenegro

In this section the consultant has to provide a list of activities which need to be carried out within the CAMP, but from the point of view of national and local needs. The proposal will then be correlated with MAP financial and professional capacities, and the final proposal will be made. The consultant has to do the following:

- On the basis of the elements used in the delimitation of the CAMP area, and the environmental and development issues relevant to that area, the consultant will outline a list (with short description) of the activities needed (from the point of view of national/local interests) to be undertaken within the CAMP.

- The consultant will outline the criteria on the basis of which he/she will prepare the priority list of activities of the CAMP. The consultant will have to consider that some activities will have to be of a global/strategic and prospective nature, while the others will have to relate to specific resources, activities and effects.
- Describe possible outputs of the CAMP Montenegro such as Local Agenda 21, coastal land-and sea-use plans, management plans, project proposals, remedial actions, capacity building, prospective studies, data bases, indicators, etc.

2.4 Justification for the CAMP Montenegro

The consultant has to provide strong arguments that the implementation of the CAMP Montenegro is possible. This particularly refers to the elaboration of prerequisites that exist in the country which will justify the intervention. The consultant should pay particular attention to the following:

- Arguments in favour of the CAMP Montenegro. The consultant should use the MAP justification for CAMPs, that can be found in a number of working papers, decisions and reports. The consultant should also indicate the national and local interests in pursuing the CAMP implementation.
- Elaboration on how MAP could proceed in this CAMP, i.e. which are the steps, from the perspective of the Montenegrin authorities, which MAP should undertake in order to successfully initiate and complete the CAMP.
- Assessment of the national and local experts' and institutional capacities for the CAMP implementation.
- Assessment of the needs for environmental awareness raising, education, training and other forms of capacity building.
- Assessment of the financial needs for the CAMP implementation, including international sources, as well as national and local sources in both, cash and kind (indicate which types of in kind contribution could be provided, and cost them).
- Present the organisation of work within the CAMP, and propose national, local and thematic counterpart institutional structure which could be tied to the MAP structure (MEDU and RACs).
- Present a realistic timetable for the CAMP activities. The consultant has to pay attention to the fact, that the implementation of CAMP activities has to be limited to 2 years of duration approximately.
- Explore the possibility of establishing a Project Implementation Unit (PIU), preferably in the premises of the MOTE, and the possibility of establishing an office at the local level within the CAMP area. Also, a proposal for an institutional arrangement at national and local level, which would present relations, co-ordination between different levels (horizontal and vertical integration) should be made in a diagrammatic form.

2.5 Annexes

- List of references used for the preparation of this report.
- List of documentation relevant to the CAMP (projects, plans, programmes, articles, laws, papers, books, studies, etc.).
- Maps. The consultant shall provide some illustrative maps in the report. A list of available maps relevant for the CAMP should also be provided, including the following information: subject, owner of the map, scale, an assessment of the possibilities to use the map for the CAMP activities purposes.

During the preparation of the report, the consultant has to co-operate closely with the MAP Focal Point for Montenegro and the responsible project co-ordinator for this CAMP at the MOTE and will take into account results of the so far discussions and preparatory activities for the CAMP Montenegro. Among others, the consultant should meet the representatives of the following authorities: MOTE, ministries responsible for transport, planning, agriculture, forestry, energy, economic/regional development, ICZM relevant institutions, Development Agency, local authorities, etc.

The report should be approved by the MOTE before submitted to the PAP/RAC.

3. Reporting

The report should have no less than 60 pages (1.5 spacing), plus annexes, maps, and other graphical material. The consultant shall use all available data and information to illustrate the opinions contained in the report. A list of data inventories should be provided.

The reporting periods are the following:

- Draft report 2,5 months after signing of contract
- Comments on the draft report by PAP/RAC 2 weeks after draft report
- Final report 4 months after signing of contract

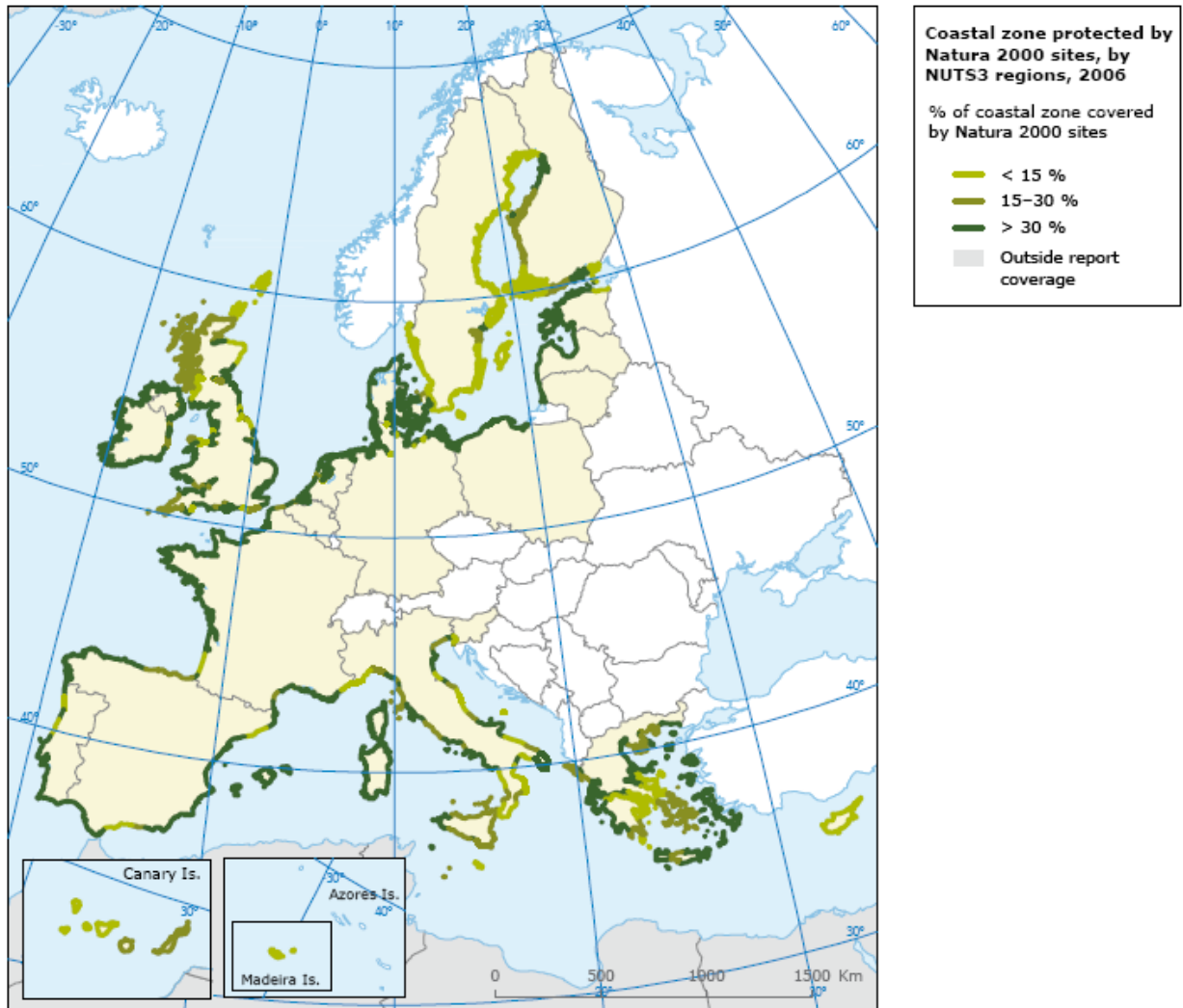
The Report must be submitted in English language in three hard copies and in an electronic form on a PC compatible programme; Word for Windows. The Montenegrin version of the text will be prepared one month after submission of the English text.

Annex 6 – Overview of initiatives, programmes and projects in the coastal area

Initiative/ programme/ project	Contents	Initiators/ partners	Funds	Area	Timeframe (status)
Biodiversity Strategy and Action Plan	Preparation of initial documents to UNCBD	MTE and GEF/UNDP		Entire Montenegro	Ongoing
Emerald	Identification of Emerald sites	MTE and Council of Europe/ EAR		Entire Montenegro	Completed
Environmental GIS	Mapping the borders of national parks and proposed Emerald sites	National institutions and UNDP	USD 80,000	Entire Montenegro	Ongoing
MSTD	Improving management to prevent further coastal degradation	Government/ WB	~ 2 M USD	Ulcinj	Ongoing
	Environmental infrastructure				
Nature protection activities in Tivat	Tivat's Solila designated as nature protected area	National and local institutions		Tivat	Completed
Designation of marine protected areas	Preparation of feasibility studies/ assessments for MPAs at Platamuni, Old Ulcinj and Katicic islands	National institutions/ SPA/RAC	~ 30,000 USD	Coast	2008
BigWin	Advocacy, biodiversity conservation	WWF		Regional	Ongoing
Dinaric eco-region	Biodiversity conservation	WWF		Regional	Ongoing
Capacity building for Natura 2000	Establishment of network of protected areas and capacity building	National institutions/ IPA	~ 1.5 MEUR	Entire Montenegro	from 2009 onwards
GIS - digital cadastral maps for MN	Digitalisation of cadastral maps	Real Estate Agency/ donors	~ 2 MEUR	Entire Montenegro	2008 - 2009
Wastewater management	Sewage construction and reconstruction projects in Ulcinj, Bar, Tivat and Kotor, Herceg Novi	Nat. institutions/ WB, USAID, KfW, Austrian Gvt, EAR	~ 25 MEUR		Ongoing

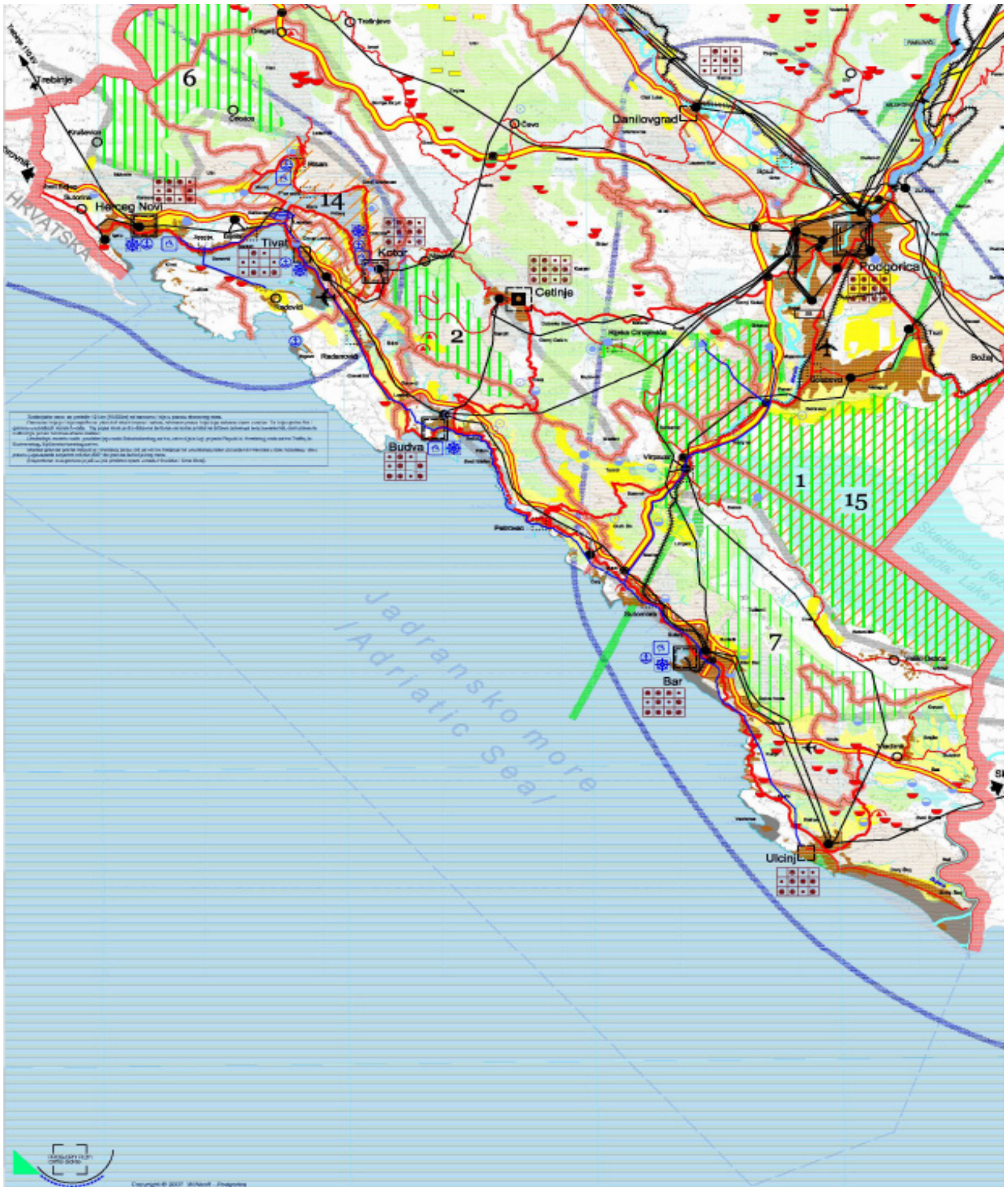
Waste Management	Waste management improvements, separate collection and recycling	USAID, Austrian Development Cooperation, other donors	~ 800,000 EUR			Ongoing
MESTAP	Construction of landfills, waste management improvements	WB	7 MUSD	Coast		Ongoing/ partly completed
Water supply	Construction of Regional Water Supply System, infrastructure improvements	WB, EBRD, KfW, USAID, EIB	~ 50 MEUR			Ongoing
Port reception facilities	Equipment and activities to reduce pollution from ships	National institutions/ private sector	~ 1.5 MEUR	Coast (mainly Bar and Bijela)		Partly completed
Improvements of monitoring programme for sea/ coastal area	Expansion and upgrading of sea water monitoring	MTE/ MED POL	80,000 EUR	Coast		2008 and onwards
ICZM planning	Drafting of ICZM Strategy	National institutions/ GTZ		Coast		Completed (final stages)
PlanCoast	Sea use planning - pilot project	PE Morsko dobro/ PAP/ RAC		Bay of Boka		
ADRICOSM STAR	Continuation and further development of the ADRICOSM forecasting system for the Adriatic Sea - Montenegro coastal area	National institutions/ Italian Gvt, UNESCO		Bojana river (Ulcinj); the Bay of Boka		2007 - 2009
Tourism development	Revision of Master Plan	MTE/ DEG		Entire Montenegro		Completed (final stages)
Technical assistance to fishery sector	Support to development and implementation of sustainable fishery legislation/ policies	MAFWM, MBI/ EAR	1 MEUR			2007 - 2008
Municipal planning documents, LEAPs	Development of municipal plans and LEAPs	Municipalities/ GTZ, other donors		Coastal municipalities		Ongoing/ completed
Kotor Management Plan	Management plan for UNESCO protected Kotor - Risan Bay	Regional Institute for Monuments, Kotor Municipality/ UNESCO		Kotor-Risan Bay		Completed

Annex 7 – Coastal zones protected under Natura 2000 in Europe (in %, 2006)



Based on the Natura 2000 database from EEA-ETC/BD.

Annex 8 – Coastal zone: an excerpt from the NSP synthesis map



- Državna granica / State boundaries
- Granica teritorijalnog mora / State boundaries on the Adriatic Sea
- Opštinska granica / Municipality boundaries
- Gradovi i urbanizovana područja
Settlements and built-up areas
- Rijeke / Rivers
- Jezera / Lakes

Razmjera / Scale 1:200 000



STRUKTURA PROSTORNOG RAZVOJA: PROJEKCIJA

STRUCTURE OF SPATIAL DEVELOPMENT: PROJECTION

LEGENDA / LEGEND

Mreža naselja / Settlement network

- Centar državnog značaja
Centre of national importance
- Centar posebnog značaja
Centre of special importance
- Centar regionalnog značaja
Centre of regional importance
- Centar opštinskog značaja
Centre of municipal importance
- Značajni lokalni centar
Important local centre
- Lokalni centar
Local centre

Tehnička infrastruktura / Technical infrastructure

- Autoput / Motorways
- Brza saobraćajnica / High speed road
- Magistralni put / Main highways
- Regionalni put / Regional ways
- Željeznica / Railways
- Međunarodni aerodromi / International airports
- Sekundarni i sportski aerodromi
Secondary and sports airfields
- Luka / Ports
- Marina / Marinas
- Sidrište / Anchorages
- Trajekt / Ferry-boat
- Regionalni vodovod
Regional water supply

Elektrane / Power station

- Hidro elektrane
Hydro power station
- Planinske hidro elektrane
Planned hydro power stations
- Termo elektrane
Thermal power station
- Planinske termo elektrane
Planned thermal power stations
- Gasne elektrane
Gas power station
- Dalekoviđi (kv)
Long distance power lines
- Akumulacija
Accumulation
- Pribranska postrojenja
Dam installations
- Trafostanice (kV/kV) / Transformer substation
400/220, 400/110, 220/110, 110/6 i 35/10 (kV)

Namjena površina / Land use pattern

- Oranje
Plowed fields
- Vinogradi i voćnjaci
Vineyards and orchards
- Ekonomski šume (visoke i juvenilne)
Exploitable forests (high and juvenile)
- Zaštitne šume
Protective forests
- Čolci, kamenjari i pašnjaci
Callow, rocks and pastures
- Rudnici uglja
Coal mines
- Rudnici boksita
Bauxite mines
- Naslađište crvenih boksita
Red bauxite deposits
- Naslađište bijelih boksita
White bauxite deposits
- Važniji kamenolomi
Major quarries
- Prostor planine Bjelasice sa pojavama i ležištima Pb-Zn-Cu i pratećih minerala
- Prostor planine Ljubišnje sa pojavama i ležištima Pb-Zn-Cu i pratećih minerala

Zaštićena područja prirode / Protected Areas

- Nacionalni parkovi / National parks**
 - 1 Skadarsko jezero
 - 2 Lovćen
 - 3 Durmitor
 - 4 Biogradska gora
 - 5 Prokletije
 - 6 Orjen
- Regionalni parkovi / Regional parks**
 - 7 Ruzičica
 - 8 Komovi
 - 9 Sinjdevina sa Šarancima
 - 10 Magić, Bič i Volujak
 - 11 Ljubišnje
 - 12 Turjak sa Hajlom
- Zona zaštićena međunarodnim ugovorima
Zones protected by international contracts**
 - 13 Svjetski rezervat biosfere -šljivo područje rijeke Tara
World biosphere rezervor - Tara River basin
 - 14 Kotor - Risni zaliv
Kotor - Risni bty
 - 15 Skadarsko jezero
Skadar lake

Izvorišta vode / Water springs

- > 1000 l/s
- 100 - 1000 l/s
- 10 - 100 l/s
- <10 l/s
- Siferni prihvatanje voda/izvorišta
Zones of water springs protection
- Prelogranična razvojna zona
Cross-border development zone
- Razvojni koridori
Development corridors
- Zona morskog dobra
Coastal zone
- Koridor jugoistočnih Dinarida u Crnoj Gori
Dinaric arc in Montenegro
- Zeleni pojas u Crnoj Gori
Green belt in Montenegro
- Koridor primorskih planina
Coastal mountains corridor

		Djelatnosti / Activities	
1	KULturno-istorijsko naslijeđe / Cultural and historical heritage	NAUČNE INSTITUCIJE / RESEARCH INSTITUTES	FAKULTETI / FACULTIES
		SEKONDARNA ŠKOLA / SECONDARY SCHOOL	OSNOVNA ŠKOLA / PRIMARY SCHOOL
3	KULturno-istorijsko naslijeđe / Cultural and historical heritage	ŠKOLA / SCHOOL	ŠKOLA / SCHOOL
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
4	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
5	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
6	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
7	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
8	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
9	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
10	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
11	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
12	KULturno-istorijsko naslijeđe / Cultural and historical heritage	OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY
		OPŠTINA / MUNICIPALITY	OPŠTINA / MUNICIPALITY

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