July 2013

CAMP Montenegro

Defining the Coastal Setback

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Table of Contents

List of Tables

List of Illustrations

1. Introduction

1.1 Importance and protection of the narrow coastal zone in the Mediterranean and in Montenegro

According to the 2005 Blue Plan scenarios, population in the Mediterranean coastal regions will increase from 143 to 174 million by 2025. Urbanisation of the coast will have a linear character all over the region. According to current trends, it is expected that 50% of the Mediterranean coast will be urbanised by 2025.

Densely populated coasts are the most exploited parts of land worldwide. Since the ancient times, use of the coastal and marine resources was a source of wealth and power and has to a great extent contributed to formation of national identities. Fishing, trade, gas / oil and tourism are examples of sectors that have been developing over decades and in some case over centuries. More recently, economic and technical development has led to emergence and growth of other sectors, especially of the use of renewable energy sources. Moreover, new pressures on coastal area and threats from natural disasters are increasing as a result of climate change. Coastal areas and protection of their delicate natural and cultural heritage are becoming priority national interest of all the countries.

Understanding the state and characteristics of environmental segments in the coastal area is especially important for sustainable use of coastal resources, ecosystems as well as of natural and landscape values. Environment affects various manners of its use and *vice versa*. On one side, environmental properties enable, facilitate or make its use more difficult. For example, biological wealth provides for successful fishing sector, and landscape attractiveness of the coast enables tourism development. Some other environmental properties, such as unfavourable climate conditions, marine pollution, strong winds and similar may cause difficulties for navigation and deter tourists from visiting. In this way, environmental characteristics impact the use of and activities in the coastal areas. On the other side, various forms of using the coastal space have an impact on the environment itself. These impacts are often manifested as pollution and degradation which is sometimes irreversible. Inter-connectedness of impacts can be thus perpetuated. Qualities of degraded environment fail to meet the needs of some activities leading to a point where these can no longer function or are substantially less successful. Very often the same activity that has a negative impact on the state of the environment becomes a victim of deteriorated environmental condition. A good example is fishing sector or uncontrolled development of mass tourism that is not followed by development of quality infrastructure. That is why preservation and sustainable use of all the environmental segments is not only an obligation from numerous international legal acts but also a long-term essential prerequisite for sustainable development of coastal zones.

Unlike the coastal zone and coastal setback, there is no standard definition of the narrow coastal zone. For the needs of this Report, the narrow coastal belt is defined as a zone extending 1 km from the sea shore. Under the Protocol on Integrated Coastal Zone Management in the Mediterranean, the coastal setback is defined as a zone of minimum 100 m in width from the sea shore line. Even though the coastal setback zone is the central theme of this Report, analyses needed to define the coastal setback necessarily have to take into account somewhat wider area to enable recognition and understanding of important ecosystem units and impact zones. One kilometre wide coastal belt is also a common spatial unit for which indicators are calculated, which will enable a more precise valuation and comparability of conditions and processes in the coastal zone of Montenegro with situation in other countries and regions.

1.2 Important requirements of Article 8 of the Protocol on Integrated Coastal Zone Management

The main goal of the Protocol on Integrated Coastal Zone Management (ICZM) in the Mediterranean is to provide a regional legal framework to ensure adequate definitions of the coastal zone are introduce into national legal systems of the Mediterranean countries and that all the activities performed in this zone are subject to integrated management. The Protocol defines the basic ICZM objectives (Article 5) including: rational planning through integrated consideration of environmental and landscape values; economic, social and cultural development; stability and integrity of coastal ecosystems; sustainable use of natural resources; reducing impacts of natural hazards (in particular of climate change); and coherence between public and private initiatives and all the decisions adopted on national, regional and local levels. The Protocol also determines the basic ICZM elements, i.e. priority action areas (Articles 8 – 15) as well as its key instruments (Articles 16 – 21). It is equally important to ensure, based on the Protocol's provisions, vertical co-ordination of local, regional and state bodies as well as horizontal co-ordination of all sectors relevant for the coastal zone.

Based on the objectives and principles set in Articles 5 and 6, Article 8 of the Protocol defines concrete measures and criteria for protection and sustainable use of the coastal zone. The coastal setback line is to be established at a distance of minimum 100 m from the shoreline (Article 8.2). Space between the shoreline and setback line makes the setback zone where construction is not allowed. According to the Protocol's requirements, this setback may not be sufficient in case of low lying coasts susceptible to erosion and costs exposed to sea-level rise risks, as well as for the parts of coast with significant ecological values. Ideally, research should be conducted to determine consistent criteria for setting the setback line, where necessary, at a distance of more than 100 m (an example of such criteria is application of projections on climate change impacts). In the framework of CAMP Montenegro activities, vulnerability assessment of the narrow coastal zone was prepared determining vulnerability of the narrow coastal belt by individual environmental segments while also providing integrated (aggregated or joint) assessment of vulnerability for different sections of the coastline based on frequency of the highest vulnerability grades. The Protocol also envisages adaptations (exceptions) of the coastal setback (to less than 100 m) for areas with particular geographical and other constraints as well as for projects of public interest, which must be provided for by national legal instruments and guided by the Protocol's principles and objectives.

1.3 Spatial plan of the Montenegrin coastal area and obligation to ensure coastal setback

By defining the coastal zone in line with the Protocol's requirements it became necessary to develop a regional spatial plan whose scope would entail the coastal area, i.e. the territory of the six coastal municipalities of Montenegro as a whole. This plan is the Special Purpose Spatial Plan for the Coastal Zone of Montenegro (SPSPCZ MNE) (hereinafter referred to as the CASP or Coastal Area Spatial Plan), which replaces the current Special Purpose Spatial Plan for Public Maritime Domain in a sense of the regional, functionally integrated spatial planning scope.

An important advantage of a planning document of such an integrated scope is an opportunity to consider, identify and assess all the important coastal zone resources in an integral and methodologically consistent manner, and to consequently create prerequisites for well-reasoned definition of land uses as well as to determine parts of the coast requiring special protection regimes and special conditions of use.

A substantial share of CAMP Montenegro activities is focused on provision of support to CASP preparation, especially for questions that refer to implementation of obligations set up under the Protocol. One such an obligation determined in the Terms of Reference is to ensure that planned solution on organisation, arrangement and use of space contains rules for arrangement and construction in the setback zone in parallel with definition of exceptions, i.e. possible setback adaptations. Therefore, the goal of this Report is to:

1. Propose criteria for defining the coastal setback;
2. Propose zones that fulfil conditions for possible setback adaptations in line with the Protocol's criteria; and
3. Propose zones that fulfil conditions for extending the setback.

As already emphasised, the content of this Report is building up directly on the results of the narrow coastal zone's vulnerability assessment which analyses vulnerability of the narrow coastal belt and represents one of the important input data for defining the coastal setback.

2. Coastal setback

2.1 The concept of the coastal setback according to the Protocol

Reasons for prescribing the coastal setback stem from the objectives and general principles set in Articles 5 and 6 of the Protocol. These reasons can be grouped around three major requirements:

1. Preservation of natural and landscape coastal values as well as of the entire natural dynamics that underpins these values (Articles 5, 6, 10, 11).
2. Avoiding risks to which the coastal area is exposed, especially avoidance of damages that may be caused by natural processes such as erosion, natural disasters and climate change (Articles 5, 22, 23).
3. Ensuring free access to the sea and coastline, which, depending on the local conditions, includes provision of acceptable forms of recreational use (Article 8).

The first requirement primarily takes into account environmental aspects significant for the belt within the coastal setback. The second requirement starts from environmental aspects but is primarily referring to mitigation of economic consequences (damages) due to coastal erosion, natural disasters and climate change. The third requirement has a pronounced social dimension in a sense of protecting everyone's right to enjoy recreational, relaxation, landscape, natural and other values of the coast.

Possible unquestionable application of the first requirement is conditioned by the existence of significant natural and landscape values and of the entire natural dynamics important for these values. If these values exist, the only manner of their full preservation is to disable change of their land use into buildable land (construction areas), i.e. to prohibit construction.

Application of the second requirement is somewhat more complex. Coastal erosion primarily depends on the type of the coast and its exposure. It is particularly marked at low lying, exposed coasts composed from materials susceptible to erosion (e.g. sandy coasts). Existence of natural disasters and climate change risks is much more difficult to predict so it is common to apply precautionary principles for them.

It is obvious that the third requirement may have elements of unconditional obligation (except in cases of national defence activities and needs, Article 4). However, fulfilment of this condition in itself does not exclude possibility of arranging the coastal belt, including limited forms of construction of appropriate amenities. In other words, even in a situation of allowed adaptation of the coastal setback, this does not automatically mean that it is not possible to secure access to the coast and free movement along the coastline. Projects of public interest as well as activities the operation of which is essentially linked to the coastline (ports, shipyards, marinas, coastal infrastructure, etc.) can make the only exception.

It is clear that the coastal setback of 100 m prescribed by the Protocol is a result of a compromise. If it is referring to a part of the coast with significant ecological, i.e. natural and landscape values, this setback may be insufficient. Where such values exist, locations hosting them are often designated as some category of protected areas or make a part of ecological network. Setback of 100 m is most frequently insufficient also for the previously mentioned low, exposed parts of the coast

composed of erosion prone materials, as is the case with sandy beaches of the southern part of the Montenegrin coastal zone. This is especially important in relation to the obligations from Article 10 of the Protocol which defines the need to preserve sand dunes with a view to the integrity of these ecosystems.

2.2 Legal aspects of the application of the Protocol's Article 8

The study titled "Coastal Setback Zones in the Mediterranean: A Study on Article 8-2 of the Mediterranean ICZM Protocol" provides starting points for the analysis of application of Article 8 of the Protocol on Integrated Coastal Zone Management. Upon PAP/RAC request, the study was prepared by the Institute for Sustainable Development and International Co-operation (IDDRI) from Paris. The key messages from the study are provided below:

- ICZM Protocol and its requirements partly overlap with or are complementary with the principles and goals of some of the other international legal acts (Convention on Biological Diversity, Convention on European Landscapes, UN Convention on the Law of the Sea and others). This demands that the states take into account synergies of these acts.
- The first step in preparations to apply the coastal setback is a clear definition of the coastline against which the setback is measured. Change in the coastline's position will also affect the basic setback line. If the coastline is retreating deeper into the land (low, open coasts exposed to storms and impacts of waves) a consequence will be a deeper setback since 100 m is determined as a minimum width. It is the task of the responsible national hydrographical service to define the sea shoreline.
- Application of the setback does not affect the existing legal construction. However, the Protocol is not specific as regards the obligation to apply setback in the zones that are predominantly or partly developed so it does not provide criteria for defining the scope of the existing construction.
- Coastal setback as well as possibilities for its adaptation must be prescribed under national legal instruments and cannot be delegated to the lower administration levels. The Protocol does not pre-empt the type of a legal instrument or document, it is important that it is adopted at the national level.
- Determination of public interest for diverging from mandatory setback is a sensitive topic. Public interest refers to economic and social interests. Setback adaptation for the projects of public interest is not precisely defined under the Protocol. It is therefore important to take into account principles, objectives and criteria of the Protocol in detailing the adaptation on the national level. The Vienna Convention also requires signatories to act in good faith and not to distort the contents, scope and spirit of the Protocol. Acting in good faith means that the possibility of adaptation should be treated as an exception allowable in a rather moderate number of cases based on elaborated and in advance defined criteria. In other words – setback is a rule that has rare, justified exceptions.
- The Protocol is implemented with a view to the principle of having an obligation to produce results and not the principle of having an obligation to use best efforts.
- One of the important requirements of the Protocol is undertaking of strategic and project level environmental assessments. These procedures need to prove that proposed plans, programmes and projects respect the Protocol's principles and criteria.
- Setback exceptions can be done in two ways. The first one is based on correcting the setback line, while the second does not interfere with the line but gives exception rights for a given project. The second

approach is favoured in this Report, meaning that the line should not be changed. Instead, adaptation will be allowed for certain types of projects and under certain additional conditions.

- Countries are obliged to monitor implementation of the Protocol and in particular to keep record on projects and situations where setback adaptation is allowed; regular reports on the matter have to be prepared.

2.3 Coastal setback and spatial planning

In the European Union, systems for spatial arrangements remain a subject regulated under national legislation whereas numerous other areas such as the environment, nature, water and sea or fisheries are primarily regulated through the EU legislation transposed into national regulations. As a "regional", i.e. international legal act, the Protocol nevertheless affects the system of arranging the space, i.e. the areas of spatial and urban planning despite the fact that they, for a majority of their elements, remain a national competence.

Requirements of the Protocol refer to three segments of the system of spatial arrangement:

1. Requirements linked to planning process and implementation of planning documents:
   - organised comprehensive cross-sectoral institutional co-ordination;
   - tightly organised (vertical) co-ordination between national authorities and local and regional bodies;
   - appropriate and timely participation of local population and of the general public in transparent decision-making processes;
   - strengthening of monitoring and observation mechanisms for coastal zone state and processes, especially with indicators use.
2. Requirements linked to the use of more advanced techniques and methods in coastal zone planning:
   - analyses of carrying capacity of the coastal zone and its parts;
   - application of ecosystem approach;
   - strategic and project level environmental assessments of plans and projects;
   - landscape planning;
   - assessments of risks from coastal processes and phenomena, especially climate change and climate variability.
3. Concrete planning criteria integrated into national legal instruments linked to sustainable use and arrangement of coastal areas:
   - determination of mandatory coastal setback with the aim to preserve natural coastal habitats, landscape, natural resources and ecosystems;
   - determination of open areas, outside specially protected areas, where urban development and other activities are limited or, where necessary, prohibited;
   - limitation of linear expansion of urban development and creation of new transport infrastructure along the coast;
   - ensuring free access to the sea and coast;
   - limitation and, as necessary, prohibition of driving and parking of motor vehicles as well as of sailing and docking of vessels in especially sensitive nature areas on land or sea, including beaches and sand dunes.

Coastal setback is just one of the requirements set under the Protocol that cuts into competences of the national system of spatial arrangement.

The term "coastal setback" has been in use for several decades, even though a more holistic understanding of its meaning is of more recent date. There are numerous countries and regions where the term is almost entirely linked to low lying, most often sandy beaches susceptible to erosion. Primary function of the setback in these situations is protection of properties, mainly built structures, from natural forces. It is however clear that under this approach, the question of mutual impacts of human activities and coastal processes is reduced to the most drastic situations only, and that the approach

employs markedly anthropogenic stance on sustainability. On the other hand, the Protocol is responsible for a much wider and integrated understanding of the setback and necessity of its implementation. Furthermore, the coastal setback is practically the only specific and quantified among the Protocol's requirements, which indicates how important the problem is and how serious is the trend of urbanisation in the whole of the Mediterranean.

Nevertheless, it should be mentioned that understanding of the coastal setback's importance is not a novelty in spatial planning. There are numerous planning documents dating back to as long as several decades that envisaged non-buildable belts of various widths along the coastal stretches that were valuable (in terms of natural features), attractive or sensitive. The fact is however that old environmental criteria were not as developed as today and that urbanisation and population movements to the coastal areas at the time were not of such a scale as to demand a specific instrument like the Protocol's setback. Today, it is obvious that we are facing a situation where pressures for construction in the narrow coastal belt are so strong that the topic of the coastal setback gained prominence and came out of the planning textbooks to become a part of international law that regulates coastal areas planning. Scales of urbanisation processes and their consequences in the coastal zone of Montenegro are partly analysed in a separate report entitled "Application of selected indicators for monitoring and evaluating sustainability of spatial development of the Montenegrin coastal zone" which was also prepared within CAMP activities.

2.4 Economic and social aspect of applying the coastal setback

In the previous part of the Report the emphasis was on natural values (biological and ecological) and resulting vulnerability of the narrow coastal zone and especially of the setback zone. Security aspect, i.e. risks from impacts of natural processes (especially erosion and climate change) were also in focus. One of the challenges for this Report was to point out to some undisputable coastal setback benefits which have clear economic and social dimension and which show that application of the coastal setback is not necessarily in contrast to the approach that favours economic valuation criteria (meaning economic dimension in a sense of benefits, whereas economic dimension can refer to cases when setback is introduced due to coastal risks and when it helps avoid economic damages). Planning of new housing zones (including temporary seasonal habitation) at settlements' borders and of touristic zones at the edge or outside settlements can be taken as an example. These are land uses that do not necessitate construction of objects in the immediate vicinity of the coastline (as is the case with, for example, ports, marinas, shipyards and similar activities}, but in practice these uses are very often found in the coastal setback zone and represent the main source of urbanisation pressures on the narrow coastal zone.

Illustrations 1, 2 and 3 provide real examples and show situations where construction for the above-mentioned purposes took place in the narrowest coastal zone, while illustration 4 provides comparative schematic presentations of situation "a" with minimum setback and situation "b" where setback is substantially wider and approximately meets the Protocol's requirements. In the situation "b" setback from the coastline leaves space for quality and richer complementary amenities for public use (sports, recreational, food&beverages) in the function of tourism as well as of permanent and temporary inhabitants.

Existence of such amenities at attractive coastal stretches enables larger tourism accommodation capacities in the immediate hinterland which will all use common amenities in the coastal belt. Part of such amenities can be developed by tourism establishments from the "first row"

whose visitors will be their primary users, but the idea is that these facilities have capacity substantially higher compared to the "first row" needs only. The privilege of using the coast in this way extends not only to accommodation capacities closest to the coast but also to others located within the spatial functional unit, which raises their quality and consequently enables their better operation and higher economic returns.

Illustration 1: Example of a situation of newer construction with minimum setback (cca 15 m) which reduced surface and capacity of the beach and of the narrow coastal belt to a minimum (Igrane, Podgora Municipality, Splitsko-dalmatinska County, source: http://geoportal.dgu.hr).

Illustration 2: Formation of settlements (including hotels) with a minimum setback whereas capacity of the beach during bathing season barely meets the needs of tourists and settlements in its immediate hinterland. Spatial possibilities for provision of any type of complementary beach and recreational amenities are practically non-existent (Podgora, Splitsko-dalmatinska County, source: http://www.hotelipodgora.hr).

Illustration 3: An example of linear expansion of settlements along the coast where minimum setback conditioned highly limited beach capacity that practically meets the needs of just one row of objects. In this way non-existence of setback indirectly generates linear construction, especially for stone, rocky shores where bathing capacity is limited anyway (Brela – Podrače, Splitsko-dalmatinska County, source: http://geoportal.dgu.hr).

The "first row" still maintains basic advantage of its location – unobstructed sea view, but does not have a monopoly over the narrow coastal belt with complementary amenities. Instead, it shares these amenities with hinterland accommodation and housing capacities.

Illustration 4 gives a schematic presentation of a coastal segment approximately 100 m wide with P+2 (ground floor and 2 stories) type of buildings that include housing and tourism apartments, and plot occupancy of around 25%. Stated conditions provide for density of 200 – 250 beds per hectare. Type "b" offers almost triple beach capacity thus covering beach needs for five rows of buildings with the given density, while as type "a" covers the needs of maximum two rows with less convenient use of the beach and poorer offer in complementary amenities. Even though it is not a rule that visitors and tourists are always using beaches closest to the place of their accommodation, possibility to get to a beach comfortably and quickly increases the overall level of tourism services and raises prices, i.e. provides for higher economic returns.

As depicted on the illustration 3, pressure for linear expansion of settlements along the coast is partly a consequence of limited beach capacities which in turn result from construction too close to the coastline that substantially reduces beach capacities and makes the beaches

de facto private. Besides using up the most valuable narrow coastal belt which is a limited resource, such construction is also less economic due to higher costs of infrastructure development compared to compact settlements. That is why application of the coastal setback and limitation of linear expansion of settlements along the coast are not just the Protocol's requirements but also principles of good urban planning which equally take into account environmental protection as well as economic and social criteria.

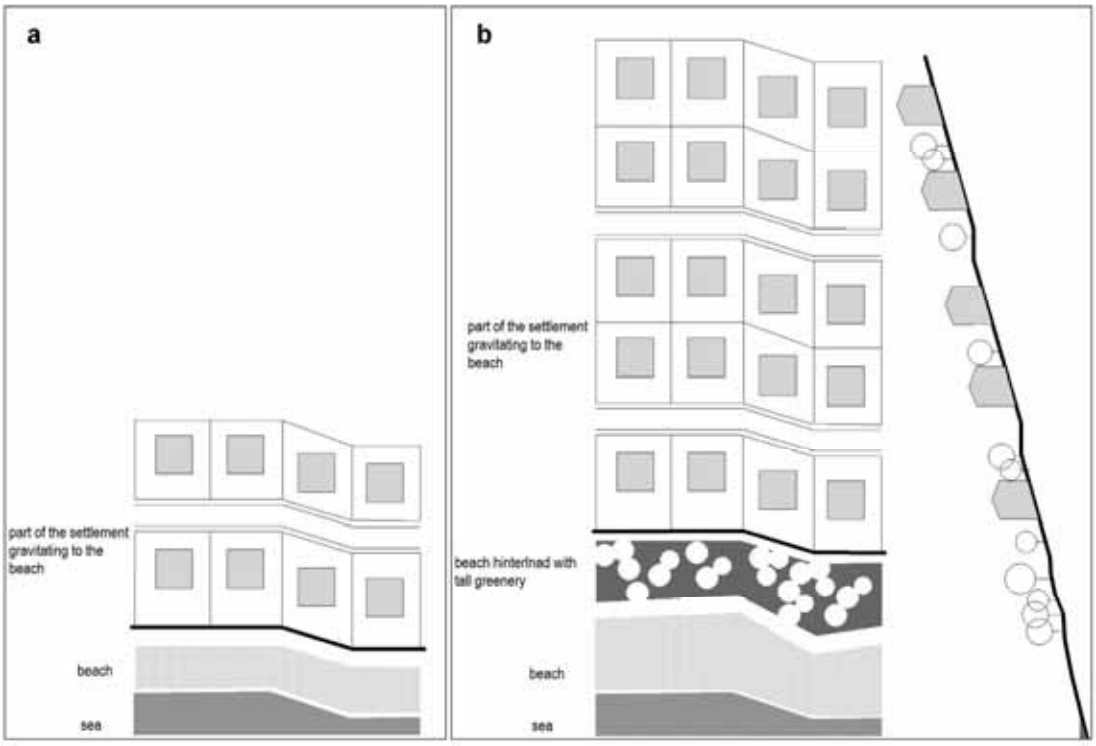

Illustration 4: Schematic presentation of a situation with minimum setback and reduced beach area (type "a") and situation with more abundant beach area which, together with wider open part of the beach enables hinterland arrangements with tall greenery and possible complementary amenities. Type "b" ensures substantially higher capacity for more pleasant stay and better offer of additional amenities while the first row maintains all the advantages it otherwise has.

Illustration 6 provides an example of commercial tourism zone outside settlements. Given the fact these are accommodation facilities of high category, setback zone of 100 m for tourist accommodation buildings was a necessary precondition to develop all the complementary amenities required for high class tourism capacities. These complementary facilities as a rule entail light pre-fabricated structures not taller than a ground floor. An important task in developing spatial solutions for tourism complexes in the coastal setback zone is recognition of natural, landscape and ecological values and to the extent possible, their preservation and presentation in specific project solutions. Detailed vulnerability assessment for the narrow coastal zone contains necessary information on vulnerability of individual environmental segments and can serve as one of the starting points for development of sustainable spatial solutions for tourism and similar interventions, especially in the zones of selected uses outside the settlements. It should be also emphasised that in most countries, especially in the developed ones, formation of zones for selected uses outside the settlements is being avoided to a maximum and represents an exception, while there is a rule never to do it in the areas of high vulnerability.

Illustration 5: Example of a beach in a settlement where buildings with apartments for rent prevail. The beach contributes to the quality of tourism offer through its dimensions and amenities and at the same time, outside the bathing season, represents an important common space by serving as a promenade with complementary amenities (Torbole, Lago di Garda, Italy).

Illustration 6: An example of commercial tourism zone with hotels and villas where coastal setback enabled development of rich beach and recreational amenities. Setback existence has thus acted as a provision for preservation of original natural and landscape values and also as a precondition for development of higher and high class tourism offer (Rovinj, Hotel Lone).

3.
Application of the coastal setback in Montenegro

3.1
Defining the coastal setback in line with the ICZM Protocol

The ICZM Protocol determines basic objectives of integrated management in the coastal zones, including rational planning that takes into account, in an integrated manner, environmental and landscape values, economic, social and cultural development, stability and integrity of coastal ecosystems, sustainable use of natural and spatial resources, impacts of natural hazards (especially climate change) as well as harmonisation of public and private initiatives and of all the decisions taken by public authorities at national, regional and local levels. According to the Protocol's Article 8, all the stated objectives and principles should be taken into account when defining the coastal setback zone where construction is not allowed and which cannot be lesser than 100 m, excluding exceptions. It is obvious that the question of coastal setback encompasses entirety of state and processes in the coastal zone and especially in the narrow coastal zone. One of the problems of comprehensive approaches is how to structure and present analysis of state and processes in the setback zone in a practical and understandable way. For the needs of this Report, traditional division into two groups of factors / criteria affecting entirety of state and processes in the coastal zone will be used – natural and anthropogenic.

According to the Protocol, natural factors in particular include natural coastal habitats, landscape, natural resources and ecosystems, as well as other physical characteristics of the area. Natural factors also include exposure to risks due to natural processes such as erosion or climate change (even though these processes, in most of the cases, can be indirectly linked to anthropogenic pressures, the already mentioned division is still more appropriate for the needs of this Report).

Anthropogenic factors refer to social, economic, cultural and technical conditions that, to a larger or lesser degree – depending on the level of anthropogenisation – affect state and processes in the coastal zone. Anthropogenic factors can be understood as sources of pressures on the coastal zone in its original natural state. These pressures can be already realised or planned. The most practical option here is to use terminology of spatial arrangement and planning whereas anthropogenic pressures (impacts) are described through the existing, i.e. planned land uses.

The two groups of factors – natural and anthropogenic – are elaborated below in more detail as criteria for defining the coastal setback.

3.2
Criteria for defining the coastal setback that stem from natural and physical characteristics and consequent vulnerability of the coastal belt

In defining the coastal setback as well as in defining situations in which adaptation (decrease) of the prescribed 100 m setback is possible, it is mandatory to consider purpose and reasons for prescribing the coastal setback that stem from objectives and general principles set in Articles 5 and 6 of the Protocol. As already

mentioned, these reasons can be grouped around three important requirements:

1. Preservation of natural and landscape coastal values as well as of total natural dynamics significant for these values.
2. Avoidance of risks to which the coastal zone is exposed, especially avoidance of damages that can occur due to natural processes such as erosion, natural disasters and climate change.
3. Ensuring free access to the sea and coast, including acceptable forms of recreational use.

The first two requirements are relatively complex since they demand a more detailed vulnerability assessment of the narrow coastal zone. Result of such assessments is categorisation of the narrow coastal zone according to vulnerability degrees. These assessments were done within the CAMP Montenegro and vulnerability models were elaborated in parallel with generation of GIS database with categorisation of the entire coastal zone according to the levels of aggregated (joint) vulnerability based on frequency of the highest levels of vulnerability by environmental segments.

The third requirement is at least partly met through the existence of public maritime domain designation which ensures non-proprietary regime i.e. public character of the narrowest coastal belt.

Higher degree of vulnerability speaks of higher importance of establishing the coastal setback. In situations where an area of high vulnerability (especially with a view to valuable coastal ecosystems and exposure to hazards, such as climate change and sea-level rise) spreads onto land for more than the prescribed 100 m, we speak of the need to increase the prescribed setback as to encompass the entire spatial unit categorised as highly vulnerable. Additional vulnerability assessment for the narrow coastal zone was performed within the CAMP Montenegro and it identified several locations whose characteristics met conditions for extending the coastal setback zone in line with the Protocol's provisions.

In principle, vulnerability assessments identify three types of situations:

1. coastal areas where it is recommendable to extend the coastal setback over the basic zone of 100 m due to high cumulative vulnerability;
2. areas where it is necessary to strictly observe the basic setback of 100 m due to determined vulnerability, i.e. where adaptation (decrease) of the setback is not possible;
3. other areas where exceptions are possible for precisely determined types of coastal situations and for defined types of interventions and projects, and where their implementation within the 100 m setback zone (adaptation) is enabled in line with the Protocol's provisions.

Criteria used as a basis for determining possibilities and conditions for adaptation of the basic coastal setback are analysed and elaborated in the following paragraphs in line with point 3. The first group comprises criteria that stem from anthropogenic conditions and pressures on the narrow coastal zone. Anthropogenic conditions include the existing conditions of utilisation and planned land uses of the coastal belt as well as types of valid planning document that are in force for specific sections of the coast.

3.3 Criteria for defining the coastal setback that stem from anthropogenic conditions and pressures on the narrow coastal belt

All the anthropogenic pressures are defined and regulated through planned land uses in the system of spatial arrangement and planning; they are evaluated through the existing land uses.

In the valid spatial planning documents there are three types of planned land use expressed as intentions of arranging the coastal belt zone (Table 1, column 1):

- buildable land for settlements (primarily intended for permanent housing) including surfaces for settlements expansion (type 1), as determined in the spatial plans;
- buildable land detached from settlements mainly for touristic purposes, primarily intended for temporary inhabitants (type 2), as determined in the spatial plans;
- remaining areas for which the existing plans do not envisage developable land areas, i.e. where coastal belt in the setback zone is maintained in its natural state (type 3), as determined in the spatial plans.

Given the state of their utilisation, i.e. the extent to which they are built-up, each of the three types of land uses can be further divided into three categories in the following manner:

- areas of buildable land that are built-up, predominantly built-up or brought to a planned use (types 1.1 and 2.1, example on Illustration 7);
- areas of buildable land that are partly built-up or partly brought to a planned use (types 1.2 and 2.2, example onIllustrations 8 and 9);
- areas of buildable land that are undeveloped, i.e. not brought to a planned use, and are planned for expansion of settlements (type 1.3) or for construction in detached zones outside settlements (type 2.3);
- areas outside buildable land that are built-up or predominantly built-up due to illegal construction (type 3.1);
- areas outside buildable land that are partly built-up due to partly illegal construction (type 3.2);
- areas outside buildable land with natural conditions (type 3.3, example on Illustration 10).

Table 1 below provides balance of surfaces within the 100 m setback zone in Montenegro according to the described types of anthropogenic criteria for defining the coastal setback's status. Unlike the subsequent tables, which provide summed up coastal data, i.e. propose setback types for linear coastal stretches (for their lengths), Table 1 gives balance (in ha) by different surfaces.

Table 1: Balance of surfaces in the setback zone (100 m) in hectares. Setback zone is categorised (first column) according to land-use statuses from valid spatial planning documents into buildable land for expansion of settlements, buildable land outside settlements and areas with natural coast. The setback zone has been additionally categorised (column 2) according to the degree to which specific areas were developed into built-up, partly built-up and undeveloped parts.

Land use	State of land	Description	Surface (ha)	%	Surface (ha)	%
1. Buildable land (BL) of settlements	**1. Fully built-up**	1.1 Area of coastal settlements, built-up or brought to a planned use, undivided BL	655	25.3	**972**	**37.6**
	2. Partly built-up	1.2 Area of coastal settlements partly built-up, linear or discontinuous BL	202	7.8		
	3. Undeveloped land	1.3 Areas for expansion of coastal settlements	115	4.4		
2. Buildable land outside settlements	**1. Fully built-up**	2.1 Areas of detached zones, primarily for tourism purposes, built-up or brought to a planned use	91	3.5	**590**	**22.8**
	2. Partly built-up	2.2 Areas of detached zones, primarily for tourism purposes, partly built-up	89	3.4		
	3. Undeveloped land	2.3 Undeveloped detached zones, primarily for tourism and housing / tourism purposes	410	15.9		
3. Coast outside BL planned to remain in its natural state	**1. Fully built-up**	3.1 Areas built-up through illegal construction	15	0.6	**1024**	**39.6**
	2. Partly built-up	3.2 Partly built-up areas through illegal construction	64	2.5		
	3. Undeveloped land	3.3 Untouched coast	945	36.5		
Total			**2,586**	**100.0**	**2,586**	**100.0**

In the following sections examples of characteristic typologies of the extent to which the areas are built-up and coastal belt used are provided, taken from 2011 orthophotos and synthesis land-use map of the coastal municipalities prepared by the CASP developers.

Illustration 7: Example of the coastal type 1.1, built-up or partly built-up parts of undivided buildable land of settlements (Herceg Novi Municipality), blue line illustrates position of the setback line of 100 m.

Illustration 8: Example of the coastal type 1.2, partly built-up segments of buildable land of settlements (Herceg Novi and Tivat Municipalities).

Illustration 9: Example of the coastal type 2.2, partly built-up segments of buildable land outside settlements (Bar Municipality). Differentiating between types 1.2 and 2.2 only on the basis of physical structure characteristics is not simple. An important factor for differentiation is a share of permanent inhabitants, type 1.2 should have higher share of permanent inhabitants and at least in its core area be older than type 2.2 which is primarily used by temporary inhabitants – secondary housing and construction of newer date.

Illustration 10: Example of natural coast (type 3.3, southwest coast of Luštica peninsula), with buildable land in the immediate hinterland. From a topographic map it is visible that setback for the planned buildable land (yellow surfaces on the left part of illustration) is, similarly to other comparable cases, due to steep and less accessible coast.

3.4 Natural criteria for defining the coastal setback and their integration with anthropogenic criteria

Anthropogenic criteria for defining various types of situations where possibilities and conditions for setback adaptation are proposed were elaborated in the previous part of the Report. In the subsequent sections, natural criteria aggregated in unique information on the level of vulnerability of the narrow coastal belt (i.e. of the setback zone itself) are introduced. As already mentioned and according to the Protocol, natural factors include valuable coastal habitats, landscape, natural resources and ecosystems as well as other related physical characteristics of the area. Natural factors also encompass exposure to risks due to natural processes such as erosion or climate change. These factors are elaborated in detail and presented in a special study dealing with vulnerability assessment of the narrow coastal zone where vulnerability of individual environmental segments was assessed and where integrated (aggregate or joint) vulnerability grades were provided for different coastal stretches. This unique information on the level of vulnerability is based on the frequency of occurrence of the highest vulnerabilities and is marked with numerical values ranging from 1 (lower vulnerability – no environmental segments with the highest vulnerability) to 4 (highest vulnerability, with 3 to 6 highly vulnerable environmental segments). By overlapping of the described anthropogenic and natural criteria, final table (matrix) is derived with all the criteria where guidelines for acting in typical situations are proposed for each combination of the types of anthropogenic criteria and vulnerability levels (Table 2).

Two conflicting goals lie behind elaboration of this Table. From the aspect of legal clarity and unambiguous acting, simplicity is expected, as simplicity is also the chief characteristic of the prescribed universal setback of 100 m for the entire Mediterranean area as an expression of regional compromise. On the other hand, given the diversity of adaptation criteria, one or more adaptation criteria can be considered as applicable in each specific situation depending on local conditions, which gives a large number of combinations. As a matter of fact, majority of situations is a hybrid of several types where possibly one type dominates and provides a basis for characterisation of the specific situation. Proposed Table (matrix) is a compromise between the need for a simple tool to evaluate setback possibilities and desire to have as objective (thus also detailed) as possible analysis of each individual situation, taking into account specificities of Montenegro.

The left part of the Table describes rows in which anthropogenic criteria are grouped. The right part includes columns with natural criteria presented for 4 levels of vulnerability. Guidelines for defining the setback are given in the intersections of these rows and columns whereas green colour denotes types of situations where setback is possible, orange stands for situations where adaptation is provisionally possible, through a more detailed definition in a national legal instrument, and red for situations where adaptation is not possible. For each field at the intersection of individual anthropogenic criteria and vulnerability levels, proposal of type of actions is made (marked with numbers 1 to 9) with indicated length and percentage share in the total length of the coastline.

Table 2: Criteria and guidelines for defining the coastal setback. Left part of the Table are anthropogenic criteria where setback zones defined in the Table 1 are repeated. Right part of the Table defines natural criteria aggregated into 4 levels of vulnerability based on the vulnerability assessment of the narrow coastal zone. Intersection of anthropogenic and natural criteria constitutes matrix with guidelines for defining the coastal setback as well as possibilities and conditions for its adaptation in line with the Protocol's provisions.

<table>
<tr><th colspan="4">Anthropogenic criteria</th><th colspan="4">Natural criteria</th></tr>
<tr><th>Land use</th><th>State of land</th><th>Description</th><th>Planning document</th><th>R1
Lower vulnerability</th><th>R2
Moderate vulnerability</th><th>R3
High vulnerability</th><th>R4
Highest vulnerability</th></tr>
<tr><td rowspan="7">1. Buildable land (BL) of set-tlements</td><td>1.
Built-up</td><td>1.1
Areas of coastal settlements, built-up or brought to a planned use, undivided BL</td><td></td><td colspan="4">1
Built-up area – setback is not applicable,
60,147 m, 25.0%</td></tr>
<tr><td rowspan="4">2.
Partly built-up</td><td rowspan="4">1.2
Areas of coastal settlements, partly built-up, linear or discontinues BL</td><td>DSL1</td><td colspan="4">2
Setback adaptation possible due to acquired development rights,
2,595 m, 1.1%</td></tr>
<tr><td>LSL</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
0</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
0</td></tr>
<tr><td>DUP/UP</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
7,986 m, 3.3%</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
4,694 m, 2.0%</td></tr>
<tr><td>Other plans</td><td colspan="2">3
Setback adaptation possible through application of urban planning criteria,
2,799 m, 1.2%</td><td colspan="2">4
Setback adaptation possible through application of urban planning criteria and additional measures,
0</td></tr>
<tr><td rowspan="3">3.
Undeveloped parts</td><td rowspan="3">1.3
Undeveloped parts of buildable land of settlements</td><td>DSL</td><td colspan="4">2
Setback adaptation possible due to acquired development rights,
1,410 m, 0.6%</td></tr>
<tr><td>LSL</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
93 m, 0.0%</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
385 m, 0.2%</td></tr>
<tr><td>DUP/UP</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
4,720 m, 2.0%</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
307 m, 0.1%</td></tr>
</table>

[1] DSL – state master plan (state study of location), LSL – local master plan (local study of location), DUP – detailed urban plan, UP – urban project.

<table>
<tr><th colspan="3">Anthropogenic criteria</th><th colspan="5">Natural criteria</th></tr>
<tr><th>Land use</th><th>State of land</th><th>Description</th><th>Planning document</th><th>R1
Lower vulnerability</th><th>R2
Moderate vulnerability</th><th>R3
High vulnerability</th><th>R4
Highest vulnerability</th></tr>
<tr><td></td><td></td><td></td><td>Other plans</td><td colspan="2">3
Setback adaptation possible through application of urban planning criteria,
3.072 m, 1,3%</td><td colspan="2">9
No adaptation possible,
0</td></tr>
<tr><td rowspan="8">2.
BL outside set-tlements</td><td>1.
Built-up</td><td>2.1
Built-up detached zones, primarily for tourism purposes</td><td></td><td colspan="4">1
Built-up area – setback is not applicable,
8,204 m, 3.4%</td></tr>
<tr><td rowspan="4">2.
Partly built-up</td><td rowspan="4">2.2
Areas of detached zones, primarily for tourism purposes, partly built-up</td><td>DSL</td><td colspan="4">2
Setback adaptation possible due to acquired development rights,
13,744 m, 5.7%</td></tr>
<tr><td>LSL</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
0</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
0</td></tr>
<tr><td>DUP/UP</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
525 m, 0.2%</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
0</td></tr>
<tr><td>Other plans</td><td colspan="2">3
Setback adaptation possible through application of urban planning criteria,
1,924 m, 0.8%</td><td colspan="2">6
Setback adaptation possible for projects of public interest with additional measures,
718 m, 0.3%</td></tr>
<tr><td rowspan="4">3.
Undeveloped parts</td><td rowspan="4">2.3
Undeveloped areas of detached zones, primarily for tourism purposes</td><td>DSL</td><td colspan="4">2
Setback adaptation possible due to acquired development rights,
12,745 m, 5.3%</td></tr>
<tr><td>LSL</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
0</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
0</td></tr>
<tr><td>DUP/UP</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
4,800 m, 2.0%</td><td colspan="2">2
Setback adaptation possible due to acquired development rights,
6.196 m, 2.7%</td></tr>
<tr><td>Other plans</td><td colspan="2">5
Setback adaptation possible for projects of public interest,
3,211 m, 1.3%</td><td colspan="2">9
No adaptation possible,
10,050 m, 4.2%</td></tr>
</table>

Anthropogenic criteria				Natural criteria			
Land use	**State of land**	**Description**	**Planning document**	**R1 Lower vulnerability**	**R2 Moderate vulnerability**	**R3 High vulnerability**	**R4 Highest vulnerability**
3. Coast outside BL planned to remain in its natural state	**1. Built-up**	3.1 Areas built-up through illegal construction	-	1 Built-up area – setback is not applicable (priorities formalization and rehabilitation), **1,378 m, 0.6%**		1a Built-up area – setback is not applicable (priorities formalization and rehabilitation with additional measures), **289 m, 0.1%**	
	2. Partly built-up	3.2 Partly built-up areas through illegal construction	-	7 Setback adaptation possible through formalisation and rehabilitation plans, **3,977 m, 1.7%**		8 Setback adaptation possible through formalisation and rehabilitation plans with additional measures, **1,536 m, 0.6%**	
	3. Undeveloped parts	3.3 Untouched, natural coast	-	5 Setback adaptation possible for projects of public interest, **20,596 m, 8.6%**		9 No adaptation possible, **54,193 m, 22.6%**	

Boundaries of areas where conditions for extending minimal setback zone of 100 m are met have been identified in the vulnerability assessment of the narrow coastal zone for locations where highly vulnerable areas spread deeper beyond 100 m line. This type was labelled as number 10 (not shown in the above table) and refers to 6.7% of the coastline, i.e. to 16,200 m. Due to specific local natural factors, conditions for setback extension at Velika beach are shown with 2 lines. The first line closer to the sea is a setback line without adaptation; for the surface lying between the two setback lines, additional conditions are proposed, such as a share (min 30%) of the surface where valuable autochthonous vegetation should be preserved in its original state (precise scope to be determined through detailed mapping). All this is shown in the maps at the end of this Report.

Table 3 below gives a balance for all the 10 setback types with corresponding lengths and percentages.

Table 3: Total lengths and percentages for various setback types (according to Table 2)

Setback type	Length (m)	%	Description of the setback type (category)
1	70,018	29.2	Built-up area – setback is not applicable
2	51,862	21.6	No setback due to acquired development rights – DSL, LSL, DUP and UP
3	7,795	3.2	Adaptation in partly built-up BL, urban planning criteria
4	0	0.0	Adaptation in partly built-up BL, urban pl. criteria with additional measures
5	23,807	9.9	Adaptation for projects of public interest
6	718	0.3	Adaptation for projects of public interest with additional measures
7	3,977	1.7	Adaptation, priority formalisation and rehabilitation plans
8	1,536	0.6	Adaptation, priority form. and rehab. plans with additional measures
9	64,244	26.8	No adaptation
10	16,200	6.7	Conditions for extension
Total	**240,157**	**100.0**	

Data in the Tables 2 and 3 show that setback adaptation is not possible for a total of 26.8% of the coast (64,244 m). Major part of this stretch – 22.6% or 54,193 m – refers to areas outside buildable land zones, meaning those that were not envisaged for construction in the first place. Remaining part of 4.2% (10,050 m) of the coastline for which it is proposed to have no adaptation is within buildable land zones and refers to areas of moderate, high and the highest vulnerability.

The following Table provides detailed guidelines for determining setback adaptation possibilities and conditions.

Table 4: Guidelines for determining setback adaptation possibilities and conditions

Setback type	Length (m)	%	Detailed description of the setback type (category)
1	**70,018**	**29.2**	**Built-up area – setback is not applicable** This type refers to fully or predominantly built-up areas (categories 1.1, 2.1 and 3.1) where setback application is physically not possible, and where the coast has lost most of natural features based on which aggregate vulnerability is derived. Category 3.1 is specific as it refers to illegally developed parts of the coast where formalisation procedures and rehabilitation plans are expected. In preparing rehabilitation plans, it will be necessary to pay attention to vulnerability of individual environmental segments that got the highest grades for those parts of category 3.1 where aggregate vulnerability is in the range 2 - 4, and to plan mitigation measures to decrease impacts to acceptable levels. This subtype is marked as 1a in the Table 2.
2	**51,862**	**21.6**	**Setback adaptation possible due to acquired development rights** This type refers to areas for which state and local master plans as well as detailed urban plans and urban projects have been developed. Setback adaptation is allowed as these are detailed plans and their permanent revocation would jeopardise legal security and annul specific acquired rights of land owners or investors. Right to adapt the setback exclusively refers to concrete planning solutions from the stated planning documents according to the state of these documents on (defined, preferred date), meaning that the setback line is adapted just for buildings that are located in the setback zone under the stated planning solutions. Setback adaptation for state and local master plans in undeveloped areas (categories 1.3 and 2.3) is temporary, with 3 years long deadline counting from (defined, preferred date). Once the deadline expires, if the planning documents provide for construction of buildings in the setback zone, they will have to be adjusted in a way as to no longer plan for construction of buildings within the setback zone.
3	**7,795**	**3.2**	**Adaptation possible with application of urban planning criteria** This type refers to partly built-up and undeveloped areas of buildable land of settlements (categories 1.2 and 1.3) as well as to partly built-up areas of buildable land outside settlements (category 2.2) for which there are no detailed spatial plans and where vulnerability is 1 or 2. Given the fact these areas are already partly built-up or planned for expansion of settlements, advantage is given to urban planning criteria that will be applied through preparation of detailed plans. Since the setback zone is without exceptions a zone of special value, urban criteria mean that objects and amenities of public interest and for public needs are planned for undeveloped parts of the setback zone as a priority, together with activities whose functioning is directly linked to the shoreline. Application of urban criteria therefore means analysis of a given settlement's needs and its deficits in line with appropriate urban standards. Real needs are determined based on the results of such analysis together with amenities that can be developed in the setback zone. It is especially important that objects located in this zone are surrounded by spaces for public use and not by closed spaces in private use. Setback adaptation is enabled only exceptionally, where the existing state of built-up areas and the existing physical structures impose different rules.

Setback type	Length (m)	%	Detailed description of the setback type (category)
4	0	0.0	**Adaptation possible with application of urban planning criteria and additional measures** This type refers to partly built-up areas of buildable land of settlements (category 1.2) for which there is no detailed planning documents and where vulnerability is 3 or 4. The same conditions as for the type 3 apply, with an obligation to plan for mitigation measures to reduce impacts of construction with adapted setback to an acceptable level; mitigation measures are to be developed through preparation of detailed spatial plans taking into account individual environmental segments that got the highest vulnerability grades.
5	23,807	9.9	**Adaptation possible for projects of public interest** The type refers to undeveloped areas of buildable land outside settlements (category 2.3) and lower vulnerability for which there is no detailed planning documents. Since these are undeveloped areas without detailed planning documents, adaptation is possible only in exceptional cases for amenities i.e. projects of public interest as defined under appropriate national legal instrument.
6	718	0.3	**Adaptation possible for projects of public interest with additional measures** This type refers to undeveloped areas of buildable land of settlements (category 1.3) and partly built-up areas of buildable land outside settlements (category 2.2) for which there are no detailed planning documents and where vulnerability is 3 or 4. Since these are the areas with higher vulnerability, adaptation is possible only in exceptional cases for projects of public interest as defined under appropriate national legal instrument, and with additional obligation to plan for mitigation measures to reduce impacts of construction with adapted setback to an acceptable level; mitigation measures are to be developed taking into account individual environmental segments that got the highest vulnerability grades.
7	3,977	1.7	**Adaptation possible with priority for formalization and rehabilitation plans** This type refers to parts of the coast outside buildable land areas, partly built-up through illegal construction (category 3.2) and within the zones of lower vulnerability. Since the construction in question is mainly illegal, a prerequisite of any intervention is formalisation of these zones and preparation of plans for their rehabilitation. As this refers to highly heterogeneous situations, adaptation is exceptionally enabled for future interpolated planned construction in cases when this is justified in urban sense by the existing extent to which the area is built-up.
8	1,536	0.6	**Adaptation possible with priority for formalization and rehabilitation plans, as well as with additional measures** This type refers to parts of the coast outside buildable land areas, partly built-up through illegal construction (category 3.2) and within the zones of higher vulnerability (2 - 4). Since the construction in question is mainly illegal, a prerequisite of any intervention is formalisation of these zones and preparation of plans for their rehabilitation. As this refers to highly heterogeneous situations, adaptation is exceptionally enabled for future interpolated planned construction in cases when this is justified in urban sense by the existing extent to which the area is built-up. An additional obligation is to plan for mitigation measures to reduce impacts of construction with adapted setback to an acceptable level; mitigation measures are to be developed taking into account individual environmental segments that got the highest vulnerability grades.
9	64,244	26.8	**No adaptation** This type refers to undeveloped buildable land areas outside settlements (category 2.3) for which there is no detailed planning documents as well as to undeveloped parts of the coast outside buildable land areas (natural coast, category 3.3) in the zones of (in both cases) of higher vulnerability (2 - 4). Due to the facts that the areas are undeveloped, not covered by detailed planning documents, and have higher vulnerability, setback adaptation is not possible (i.e. no construction is possible within the 100 m belt), in line with the Protocol's requirements.
10	16,200	6.7	**Conditions for extending the setback zone** The areas in question have high vulnerability and meet the conditions, in line with the Protocol's requirements, for extending the setback zone. Depending on the positioning of highly vulnerable zones, these surfaces are defined on the mapped presentations annexed at the end of this Report. More details on the methodology for detailing these areas can be found in another study titled "Vulnerability assessment of the narrow coastal zone".

4.
Conclusions and recommednations for the Coastal Area Spatial Plan

[1] The topic of this Report is definition of the coastal setback in Montenegro through a rational and professionally founded procedure in order to avoid application of criteria for defining and adapting the setback on a case by case basis. That is why the Report proposes methodology for systematic elaboration of criteria leading to guidelines for acting in typical situations found in the coastal area. In order to have as objective and harmonised definition of the setback (i.e. definition of conditions for its adaptation or extension) as possible, criteria categorised into two groups have been elaborated. The first group encompasses anthropogenic criteria including planned land uses as designated under valid spatial planning documents and the extent to which the areas are built-up. The second group entails criteria conditioned by natural and physical characteristics of the coastal zone aggregated into unique level of vulnerability ranging from 1 to 4. Based on these criteria, matrix for consistent acting in various typical situations is proposed. Even though proposals for defining the coastal setback provided in the matrix result from detailed analysis and engagement of a wide group of experts, it is advisable to avoid mechanical application of provided criteria and guidelines. One of the reasons is that incorrect or incomplete input data may have been used in determining the setback, i.e. possibilities for its adaptation, for both anthropogenic and natural criteria. That is why we recommend using the matrix as a guideline with mandatory additional check-up for each situation in terms of precision and applicability of offered solutions. It is also recommendable to check problematic situations in the field, especially having in mind that performed vulnerability assessments have not treated landscape values of the coastal belt to a sufficient extent (realisation of this task was an obligation of the CASP developer, as a part of work on finalising baseline study for the CASP). It is also recommended to additionally discuss proposed guidelines through presentations and expert debates, especially with the CASP developer, and to clarify or amend them, if needed.

[2] An especially important aspect is integration of valuable parts of the coast (where adaptation is not recommended) with neighbouring areas in their immediate hinterland, which should remain in their natural state, i.e. become part of a system of open spaces not planned for intensive urbanisation due to their landscape, natural and other values. This refers to areas with predominantly rural characteristics where future construction would be exclusively linked to the existing traditional settlements or to the activities of agricultural holdings and processing of agricultural products. Part of the system of open spaces are zones with fertile land and valuable traditional cultural landscape whose preservation is a foundation for multi-functional rural development where agricultural production is combined with tourism offer (agro-tourism) and different forms of open space recreation. Rural development is strongly supported through the EU funds in the pre-accession process since it links, in an ideal manner, interests of local communities,

creates new jobs, preserves and affirms autochthonous cultural and historical values while acting, at the same time, in a nature and environmentally friendly way. One of the current development problems is that majority of economic opportunities in the coastal region is identified in tourism and real estate sectors (secondary homes) in the narrow coastal belt. An important task for the CASP Montenegro is to identify other development opportunities that open possibilities for development of a diversified economy. Potential of rural and open space areas and resources they harbour is one such development opportunity. From a perspective or regulating the coastal setback, this would (at least partly) alleviate construction pressures from the narrow coastal belt. It should be also stressed that only a tourist region with developed traditional rural offer can enable autochthonous experiences and events (gastronomic, oenological, cultural, etc. expected by modern tourists.

[3] Application of the coastal setback should not be considered separately from spatial planning good practices since the principles that led to the setback adoption are the same as the ones fundamental to spatial and urban planning. For this reason, it would be optimal to resolve in the same process the issue of coastal setback according to the Protocol and the issue of redefining areas of buildable land in settlements in line with obligations from Article 77 of the Rulebook, i.e. in line with findings of the analyses conducted within CASP and CAMP Montenegro activities. Part of the problem of existing areas of buildable land in settlements from older plans was to some extent caused by technological limitations and available analogue baselines, i.e. by imprecisions that were compensated through determination of larger construction areas with rough, schematic boundaries. On the other side, newer plans have been developed in a time of economic growth and high demand for coastal real estate which represented additional pressure for spatial plan developers. It is exactly because of these exposures to pressures that planners need tools and methods promoted through CAMP activities, which, to the extent possible, make the decision-making process objective by providing rational and convincing arguments for all the actors in the planning process.

[4] It is also important to bear in mind that the Protocol does not deal with open spaces as elements of physical structure of settlements. For example, a position that adaptation of the coastal setback is enabled in buildable land area of established and predominantly built-up settlement for the remaining undeveloped areas is acceptable, especially for projects of public interest. This should by no means be interpreted as stimulation of construction within the setback zone. As a rule, these are parts of the coastal belt that were not brought to final purpose and where urban criteria and needs of specific settlements should have primary importance. Narrow coastal belt and setback zone are always areas of special values in physical structure of settlements where criteria of public interest and public needs must have priority in urban solutions for these situations. Good practices show that best solutions are usually those that allow for public surfaces along the seashore, intended primarily for leisure activities and open for all the inhabitants.

[5] The issue of general relation between built-up and natural coast within 1 km belt is currently more important for sustainability of spatial and total development of the coastal zone of Montenegro than the setback line itself. According to the valid planning documents, areas planned for construction, i.e. buildable land areas are very high, with some 46% of the total surface of 1 km belt. If CASP Montenegro reconfirms all the designated construction

areas, it will mean that more than doubling of all the construction of past generations and so far investors is planned during the next 16 years, i.e. by 2030 (14% of the 1 km belt has been built-up so far). It is more than obvious that such a plan is neither sustainable nor, luckily, implementable. What we have here is exceptionally high extent of built-up areas, even when compared with several times more densely populated coasts of Spain, France and Italy. On the other hand, undeveloped coast and adjacent areas are an important basis for attractiveness of touristic and overall development of the coastal area of Montenegro. That is why it should be seriously considered to revise buildable land areas through future CASP provisions, as this is anyway required under the valid Rulebook on a more precise content of spatial plans. Each new expansion of buildable land should be conditioned by its reduction at other similar locations, whereas achieved planned levels of development would not be exceeded. In parallel with these spatial planning instruments, whose efficiency in managing spatial development has proved to be rather questionable, it is necessary to consider introduction of land use policy instruments (or more ambitious implementation of the existing ones) that can be also used to reduce pressures for new buildable land areas in a highly efficient manner. This is a very sensitive topic and should be approached with great care. Besides all of the mentioned things, it should be stressed that in the current situation, the need not to touch planned detached areas of buildable land, i.e. to protect them from any partial interventions for as long as serious and integral projects for them do not emerge has a priority over the issue of total surface of buildable land and its share in the total territory. While all the previous questions are very important for the future of the Montenegrin coast, this one is the most urgent. The biggest danger from excessive buildable land areas is that in all of them, small, non-harmonised and partial interventions are initiated which irreversibly degrade space and undermine development potential of large parts of the coastal area.

[6] It is very important to understand and accept that setback does not represent an obstacle for investment in large planned tourism zones. As shown in this Report, serious tourism projects of higher standards necessitate setback zone for arrangement of public, green, recreational, beach and similar amenities while it is possible to realise accommodation functions behind the setback line without any problems. As a rule, real estate projects for temporary housing (apartments, villas) are those where setback is seen as an obstacle, therefore setback critiques are usually good indicator of investors' intentions, showing whether they are really interested in commercial tourism or real estate business. It should be also stressed that a principle of sustainable coastal planning is that zones for temporary housing are located within or besides the settlements, and never in precious detached zones as an exclusive purpose.

[7] Topography and relief diversity of the coast create countless and various physical situations in which human settlements and spatial activities fit. Depending on historical and cultural conditions and impacts, different typologies of habitation and use of space have emerged. Most of the traditional historical matrices of land use carry in themselves significant values; as such, they are recognised and often protected. On the other hand, in more recent times there are numerous examples of interventions in the coastal area that are devastating it and not respecting traditional construction practices, while at the same time they fail to contribute to new, contemporary solutions in the sensitive coastal belt. Intention of the

Protocol is by no means to engage in detailed urban planning and design of mainly established settlements, and the coastal setback is too rough an instrument to resolve the mentioned problems. It is certain that by prescribing coastal setback the intention is not to disable additional expansion and arrangement of valuable and traditional coastal settlements in line with rules that lie behind development of their original physical structure. A good example are numerous settlements around Bokokotorski Bay where steep slopes and narrow coastal belt conditioned matrix of settlements that have necessarily developed along the coast (Illustration 7). Insisting on strict application of the coastal setback in these situations is not justified hence the Protocol recognizes possibility to adapt the setback under such conditions. Analyses conducted for the preparation of this Report have shown that practically all the situations of planned expansion of settlements in the inner part of Bokokotorski Bay are regulated under detailed spatial planning documents (DSL, DUP and UP) and that adaptation is possible due to provisions on acquired rights, i.e. due to obligation of providing for legal security and avoidance of retroactive application of new regulations. It was therefore not necessary to introduce new category of possible setback adaptation due to specific geographic limitations even though the Protocol provides for such an option. Parts of Bokokotorski Bay with specific geographic limitations are shown in the Illustration 11.

[8] All the situations of applying the setback adaptation need to be documented, whereas purpose and justification for specific applications in line with the national legal instrument regulating the matter need to elaborated. As a part of prescribed maintenance of spatial information system in the competent Ministry, the use of adaptation provisions should be monitored and documented, especially for cases of adaptation due to acquired rights and for projects of public interest. The same questions should be monitored through the regular reports on the state of spatial arrangement. It is also important to determine state of detailed planning documents (DSL, LSL, DUP, UP) on the date of enactment of the national legal instrument and have the same saved in the spatial information system.

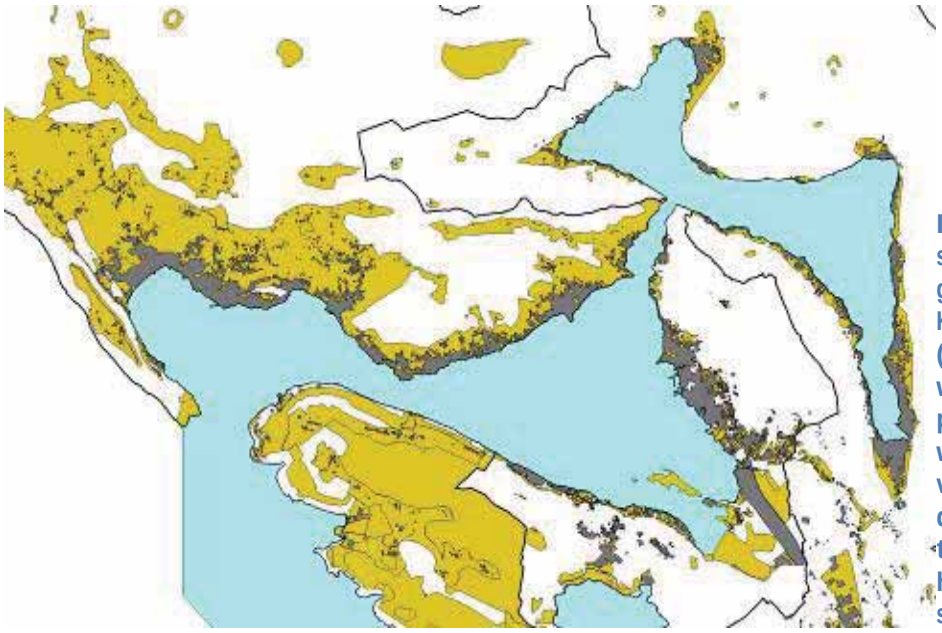

Illustration 11: Typology of settlements conditioned by geographic limitations in Kotor Municipality (buildable land is marked with yellow and built-up parts of buildable land areas with grey colour). It is visible that settlements are developing linearly along the coast due to steep hinterland and narrow belt suitable for construction.

5.
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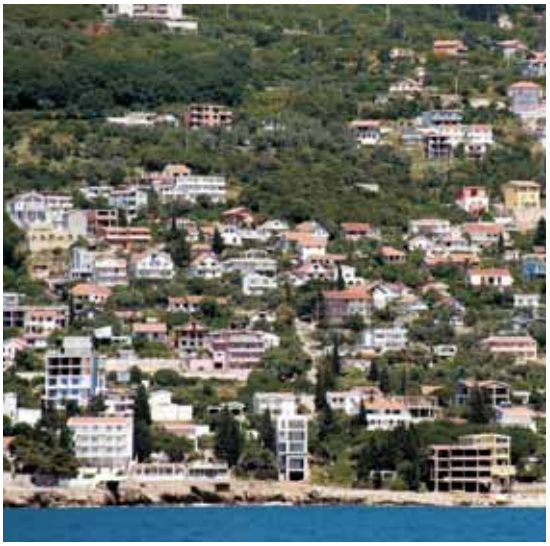
July 2013



CAMP Montenegro is a programme implemented jointly by United Nations Environment Programme Mediterranean Action Plan (UNEP/MAP) and the Montenegrin Ministry of Sustainable Development and Tourism (MSDT), with the involvement of local governments from the project area and of other relevant institutions.

The main objectives of the CAMP Montenegro include:

- creation of necessary mechanisms that can help achieve sustainable development of the coastal area;
- support for the implementation of national policies and the ICZM Protocol of the Barcelona Convention;
- promotion of integrated and participatory planning and management in the coastal area;
- development of national and local capacities for ICZM and raising awareness of the importance of the coastal area, complexity and fragility of its ecosystems and of the need for integrated approaches in managing them;
- facilitation of the transfer of knowledge on ICZM tools and approaches.

The main output of the programme is the ICZM Strategy and the Plan for Montenegro.