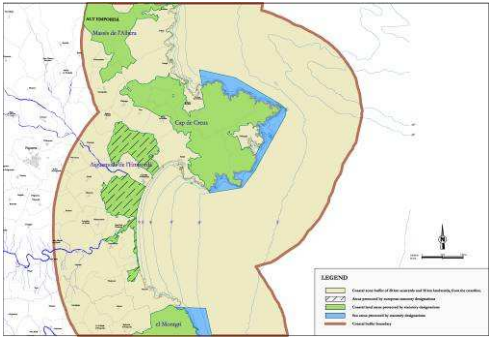
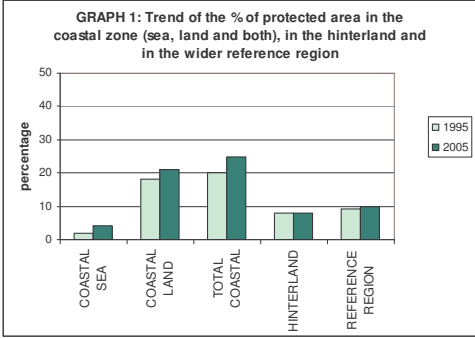
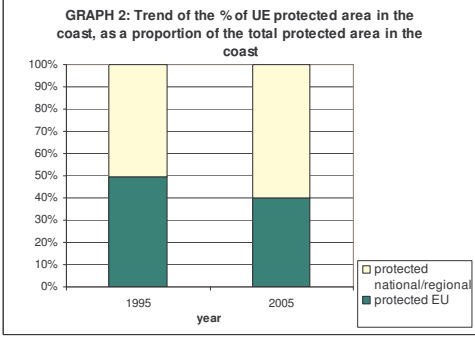


<b>Indicator</b>	
8.	Area of land and sea protected by statutory designations
<b>Measurement</b>	
8.1	Area protected for reasons of nature conservation, landscape or heritage
<b>What should the measurement tell us?</b>	
<p>We want to know how important the marine and terrestrial coastal zone is for wildlife, for the conservation of natural areas, special landscapes and landforms and for archaeology and cultural ‘heritage’. The measurement reflects the response of public administrations in protecting their coastal area at European, national and regional level and it also compares the protection measures in the coastal zones against the protection effort in the hinterland.</p> <p>The measurement also reflects the response of the public administrations in identifying and protecting the required areas to achieve conservation specifically at EU level (specified priority habitat and species from the annexes of the Habitats Directive and Birds Directive). This is referred to as the percentage of protected coastal area that is protected at EU level.</p> <p>The World Commission on Protected Areas (WCPA) describes a protected area as “an area of land and /or sea especially dedicated to the protection and maintenance of biological diversity and of natural and associated cultural resources and managed through legal or other effective means”. According to this definition, the concept of a protected area implies the existence of a statutory designation, durability (which is guaranteed by law or by the public domains granted in concession) and management (the effectiveness of a protected area is intimately related to its management).</p> <p>Some protection statutory designations that do not refer to a specific zone, such as protected habitats (ex. seagrasses) or prohibiting fishing at specific depths (ex. trawling prohibition at depths less than 50m in some regions), might also be considered, since they are designated for environment protection, even if the protection is only against specific uses. However, they should only be included if there is reliable cartography that allows delimiting the zones to protect and if they have a management plan associated with a surveillance action, which most of the times is already defined in the protection law.</p> <p>Protection against development provided by spatial planning must only be considered if this protection does not permit the change of land qualification from non-building to building land.</p> <p>Landwards and seawards limits of the coastal zone have been established according to different criteria: 1) the extension of the area of influence of human activities that occurs on the coastline or is related to it; 2) the extension reached by natural systems and by cultural/natural heritage that is related in some way to the coastal zone and 3) the extension of land and sea where states have the competence to manage and protect by statutory designations. According to these criteria, the coastal zone is defined as the coastal buffer of 10km seawards from the coastline (which equals the territorial sea when the baseline meets the normal baseline) and 10km landwards from the coastline.</p>	
<b>Parameters</b>	
(i)	The percentage of protected area in the coastal zone buffer (land, sea and both), compared to the percentage of protected area in the hinterland and with the percentage of protected

	area in the wider reference region	
(ii)	The percentage of protected coastal area at the EU level, as a proportion of the total protected coastal area	
<b>Coverage</b>		
<b>Spatial</b>		<b>Temporal</b>
Coastal zone buffer of 10km seawards and 10km landwards from the coastline <sup>(3)</sup> .		Cartography baseline measurement from 1995 and 2005 to study the trend in the area for land conservation purposes and the improvements of public administration on this topic. If not available, consider the most recent measurement in forming a picture of the present state of the coast.
<b>Data sources</b>		
European Environment Agency, NATURA2000, National and Regional Environment Agencies. Cartographic data sources at middle scale from cartographic institutions at regional/national level (1:10,000 would be appropriate, 1:25,000 or 1:50,000 if not available).		
<b>Methodology</b>		
<b>Steps</b>		<b>Products</b>
1	Define the statutory designations for landscape and environment protection to be considered. Only areas protected by law or by other effective means are valid: <ul style="list-style-type: none"> <li>- European statutory designations: Natura 2000</li> <li>- National and regional statutory designation <ul style="list-style-type: none"> <li>- national parks, natural parks, areas of natural interest or any statutory designation existing in the reference region.</li> </ul> </li> <li>- Areas containing protected habitats - only if reliable cartography is available for those habitats</li> <li>- Areas where specific extractive activities are forbidden - only if they can be clearly delimited (ex. prohibiting trawling at specific depths)</li> <li>- Areas protected by regional/national spatial planning - only if they provide firm and immovable protection against development (ex. local councils cannot change land qualification)</li> </ul>	List of statutory designations and areas designed for landscape and environment protection
2	Define the statutory designations for fisheries protection to consider. Only areas protected by law or by other effective means are valid <sup>(3)</sup> :	List of statutory designations and areas designed for fisheries protection

	- Areas designated for fisheries protection at any level (regional, national or European), named as “Fishery reserves” (excluding temporal fishery reserves)	
3	Define the statutory designations for cultural protection to consider. Only areas protected by law or by other effective means are valid: <ul style="list-style-type: none"> <li>- Areas designated by cultural heritage protection: European, national and regional statutory designations</li> <li>- Do not consider buildings and other individual elements such as museum, shipwrecks or lighthouses</li> </ul>	List of statutory designations and areas designed for cultural heritage protection
4	Create the coastal buffer with the cited spatial coverage and state its total area	Area of the coastal buffer (Ha)
5	For each cartography basement, identify all the protected areas considered in steps 1, 2 and 3 that are located within the coastal buffer	<u>Location and extent of protected areas within the coastal buffer. Thematic maps</u>
6	For each cartography basement, overlay the coastal buffer and select all the protected areas that intersect with the buffer to obtain the summation of these areas <sup>(1,2)</sup>	Protected area within the coastal buffer (Ha)
7	Divide the product of step 6 by the product of step 4 and multiply it by 100	<u>Protected area within the coastal buffer as a proportion of the total area of the coastal buffer (Graph 1)</u>
8	For each cartography basement, sample (collect) shapes for the individual protected areas within the coastal buffer and label individual shapes as marine or terrestrial. Get the summation of the areas for each category (land and sea) <sup>(2)</sup>	Protected land area and protected sea area within the coastal buffer (Ha)
9	Divide each product of step 8 by the product of step 4 and multiply it by 100	<u>Protected land and sea area within the coastal buffer, as a proportion of the total area of the coastal buffer (Graph 1)</u>
10	Obtain the total area of the wider reference region (remember to include the sea area delimited by the coastal buffer)	Area of the wider reference region (Ha)

11	For each cartography basement, identify all the protected areas considered in steps 1, 2 and 3 that are located within the wider reference region (remember to include the sea area delimited by the coastal buffer) and obtain the summation of these areas <sup>(2)</sup>	Protected area in the wider reference region (Ha)
12	Divide the product of step 11 by the product of step 10 and multiply it by 100	<u>Protected area in the wider reference region, as a proportion of the total area of the wider reference region</u> (Graph 1)
13	Subtract the coastal buffer area to the area of the wider reference region to obtain the hinterland area	Hinterland area (Ha)
14	For each cartography basement, select the protected areas in the hinterland and obtain the summation of these areas <sup>(2)</sup>	Protected area in the hinterland (Ha)
15	Divide the product of step 14 by the product of step 13 and multiply it by 100	<u>Protected area in the hinterland as a proportion of the hinterland area</u> (Graph 1)
16	For each cartography basement, label the shapes for the individual protected zones within the coastal buffer as protected by UE laws (Natura 2000) and non-protected by UE laws but protected by others	Classification of shapes within the coastal buffer as sites protected at UE level and sites not protected at the UE level. Thematic maps.
17	Get the summation of areas labelled in step 16 as coastal areas protected by UE laws (Natura 2000) <sup>(2)</sup>	Area protected by European law within the coastal buffer (Ha)
18	Subtract the product of step 15 to the product of 6	Area not protected by European law within the coastal buffer but protected by other laws (Ha)
19	Divide the product of step 17 by the product of step 6 and multiply it by 100	<u>Area protected by European law within the coastal buffer, as a proportion of the total protected area in the coastal buffer</u> (Graph 2)
20	Divide the product of step 18 by the product of step 6 and multiply it by 100	<u>Area not protected by European law within the coastal buffer, as a proportion of the total protected area in the coastal buffer</u> (Graph 2)

<b>Presentation of the data</b>	
Maps	<p>Location, identification (labels), classification (legend) and extent of protected areas at the European, national and regional level designations on land and at sea in the coastal buffer.</p> 
Graph 1	<p>Bar chart showing the trend of protected area in the coastal buffer (land, sea and both) as a proportion of the total area of the coastal buffer, compared to the proportion of protected area in the hinterland and to the proportion of protected area in the wider reference region.</p> 
Graph 2	<p>Bar chart showing the trend of the coastal area protected by European laws as a proportion of the protected area in the coastal buffer <sup>(3)</sup>.</p> 
<b>Adding value to the data</b>	
<p>We are interested in not only how the protected area differs from a fixed coastal buffer and the rest of the hinterland or the wider reference region but also in variations in the percentage of protected area as we reduce the width of the coastal buffer towards the coastline. Such variations can be revealed by graphing the percentage of protected area for two coastal buffers of different widths - 0-1km and 0-10km landwards (0 refers to the coastline). It would also be interesting to graph the same variation for the marine area (coastal buffers of 0-1km and 0-10km seawards).</p>	
<b>Aggregation and disaggregation</b>	
<p>Protected land and sea can be aggregated into total protected coastal area or can be disaggregated. However, it is recommended to disaggregate them.</p>	

**Notes:**

- (1) Care must be taken with the differences that may exist in the coastline basement cartography from one year to another since some protected areas on the land in one basement cartography may appear in the sea in another basement cartography
- (2) All categories are projected together and we do NOT use the cumulative area
- (3) The following changes to this methodology were agreed by the NMG:
  - Fisheries regulations should be removed from the methodology because it is a special case. Instead, a note should be added: “review fisheries laws that may have a benefit for nature protection”
  - Graph 2 may be substituted by a graph showing ‘Total protected area, Area protected at national level and Nature 2000’.
  - Agreed coastal buffer - 1km land/sea, 10km land/sea, coastal NUTS 5/territorial sea (administrative limits)