

<b>Indicator</b>		
1	Demand for property on the coast.	
<b>Measurement</b>		
1.1	Size, density and proportion of the population living in the coastal zone.	
<b>What should the measurement tell us?</b>		
We want to know the degree to which the population of a country or a wider reference region is concentrated in the coastal zone. Tracking changes in the distribution of the population of a coastal region over time will help us assess the amount of pressure being exerted on coastal resources by the demand for land, housing, employment, public services, transport and so on. We are especially interested in determining whether such pressure is general throughout the wider reference region or specific to the coast.		
<b>Parameters</b>		
(i)	Number of inhabitants per square kilometre in coastal NUTS 5 compared to the number of inhabitants in non-coastal NUTS 5 in the wider reference region.	
(ii)	Population of the coastal NUTS 5 as a proportion of the total population of the wider reference region.	
<b>Coverage</b>		
<b>Spatial</b>		
Coastal NUTS 5.	Minimum of the three most recent census points <sup>(1)</sup> .	
<b>Temporal</b>		
<b>Data sources</b>		
Every coastal member state conducts a decennial census; this is the source of data for this measurement. Data is available from the national census data provider. Some countries and regions conduct mid-term estimates of their population but these are unlikely to yield usable data at NUTS 5. There are exceptions, however and the decennial census should be complemented with additional data where available and of the required precision.		
<b>Methodology</b>		
<b>Steps</b>		
1	For at least the three most recent census points, identify all current NUTS 5 which have, or had in the past, a border with the coastline <sup>(2)</sup> and assign a unique identification code to each <sup>(3)</sup> .	List of all current and historic coastal NUTS 5 for at least the three most recent census points.
2	Obtain the total population for the wider reference region for each census point.	Population of the wider reference region.

3	For each census point, add up the population of every coastal NUTS 5 identified in step 1.	Population of all coastal NUTS 5.
4	Subtract the total population of coastal NUTS 5 from the population of the wider reference region.	Population of all non-coastal NUTS 5 <sup>(4)</sup> .
5	For each census point, obtain the area of the wider reference region.	Area of the wider reference region.
6	For each census point, add up the area of every coastal NUTS 5 identified in step 1.	Area of all coastal NUTS 5.
7	Subtract the total area of coastal NUTS 4/5 from the total area of the wider reference region.	Area of all non-coastal NUTS 5.
8	Divide the product of step 3 by the product of step 6.	<u>Inhabitants per square kilometre in coastal NUTS 5.</u>
9	Divide the product of step 4 by the product of step 7.	<u>Inhabitants per square kilometre in non-coastal NUTS 5.</u>
10	For each census point, divide the population of the coastal NUTS 4/5 by the population of the wider reference region and multiply the product by 100.	<u>Population of the coastal NUTS 5 as a proportion of the total population of the wider reference region.</u>

### Presentation of the data

Maps	None.
Graph 1	Bar chart showing the population of the coastal NUTS 5 as a percentage of the population of the wider reference region for a minimum of the three most recent census points.
Graph 2	Bar chart showing the number of inhabitants per square kilometre of coastal NUTS 5 and non-coastal NUTS 5 for a minimum of the three most recent census points.

## Adding value to the data

### Mapping population density

We are interested not only in how the coastal zone differs from the rest of the wider coastal region but also in differences *within the coastal zone itself*. Although Graph 2 will demonstrate whether population density in the wider reference region is greater in the coastal zone than in the hinterland, it will not demonstrate variations in population density within the coastal NUTS 5.

Such variations can be revealed by mapping population density for all NUTS 5 throughout the wider reference region. Techniques then exist to describe *patterns* of density revealed by the mapping exercise.

### Notes

- (<sup>1</sup>) A minimum of three census points are necessary before a trend can be determined.
- (<sup>2</sup>) The boundaries of NUTS 5 (and NUTS 4) often change from one census point to another. Sometimes an area is split into two or three separate areas but more commonly, areas are amalgamated. A consequence of this is that a NUTS 5 without a boundary with the coastline at a previous census point may have become part of a coastal NUTS 5 by the time of a later census. It is therefore necessary to reconstruct patterns of NUTS 5 at previous census points to ensure that (a) all current non-coastal NUTS 5 that once had a coastal boundary are included; (b) all historic non-coastal NUTS 5 that are now part of a coastal NUTS 5 are included.
- (<sup>3</sup>) National census data providers should assign a unique identifier to each current and historic NUTS 5. If they do not, a unique identification code must be assigned to each area.
- (<sup>4</sup>) Non-coastal NUTS 5 are all NUTS 5 located in the wider reference region which do not border the coastline at a particular census point (except when such a border existed in the past – see note 2 above).