Projet cofinancé par le Fonds Européen de Développement Régional (FEDER)
Project cofinanced by the European Regional Development Fund (ERDF)

MED MARITIME INTEGRATED PROJECTS
Med-IAMER

Adriatic Ionian ecoregion (AIE)

Coastal and Maritime Tourism

Definition

Coastal tourism refers to land-based tourism activities including swimming, surfing, sun bathing and other coastal recreation activities taking place on the coast for which the proximity to the sea is a condition including also their respective services. Maritime tourism refers to sea-based activities such as boating, yachting, cruising, nautical sports as well as their land-based services and infrastructures (Ecorys, 2013).

Regional context

The tourism sector in the Adriatic Ionian ecoregion is among the most active sectors in Europe as it attracts around 12% of the total tourists visiting a European destination. However, it includes different patterns of coastal and maritime tourism development. To host tourists, the region developed a large range of tourist infrastructures along its coasts including hotels and marinas. The regions' capacity for tourist accommodation exceeds 3.5 million beds being 12.4% of the total available beds around Europe.

Italy and Croatia host most of the tourists targeting this region being 71% (> 40 mil.) and 18% (>10 mil.) of the total tourist arrivals to the AIE region respectively showing to have the highest numbers of beds as well. Bed capacity (number of beds) and total tourist arrivals of coastal regions within the AIE for the year 2012 are presented in the next table.

Country	Number of Beds	Tourist Arrivals
Greece	274,382	3,921,186
Italy	2,290,732	40,570,906
Croatia	769,204	10,277,159
Montenegro	149,348	1,439,500
Albania	15,901	250,000
Slovenia	24,560	656,823
Total Adriatic-Ionian	3,524,127	57,115,574
Total Europe	28,390,959	492,515,102
Adriatic-Ionian / Europe	12.4%	11.6%

Annual Capacity and Occupancy in Tourists' Accommodation Infrastructure (2012)

Different types of tourists target this region. Italy and Greece attract two types of tourists: on the one hand, low profile (camping, small scale fishing and

recreational fishing) and mass tourism destinations (low quality services for high volumes of tourists) and, on the other hand, niche tourism destinations (high quality of services for low volumes of tourists with higher willingness to spend). In Croatia, despite the range of possibilities, current models mostly include summer seaside tourism and particularly sailing. In Montenegro the accommodation offer is very limited and not organized; however, gradually this sector is growing due to important ecologically preserved attractions present in this country. Finally, Albania's model seems to attract mostly visitors from within the country, especially during the summer period, rather than foreign visitors (IPA, 2013).

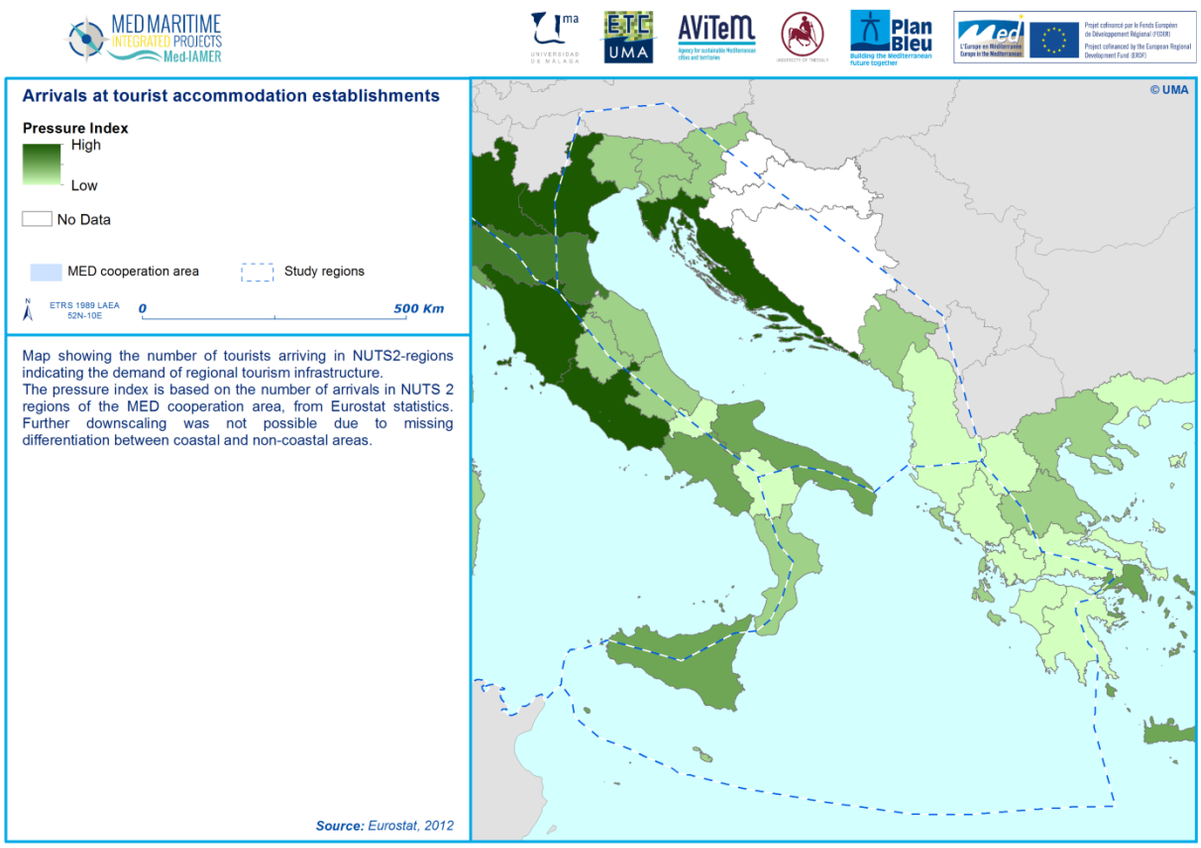
Spatially, tourists distributions show various trends in the region, where Italy hosts most of the tourist concentrations in the Northern coasts whereas tourists visiting Croatia are concentrated all along its coasts. As for the Greek coasts, tourists' presence is higher in the Aegean coasts and islands, than in the main land. The following map presents the number of tourist arrivals per NUTS2 region in the AIE.

Highlighted features

The map shows the number of arrivals at tourist accommodation establishments per NUTS2 region. It illustrates the most frequented regions in AIE. The coastal regions of Croatia and the North-Western regions in Italy concentrate most of the tourists in the region. The map clarifies also the uneven distribution of national occupancy data (see table above). In the case of Greece, most of the tourists arriving stay in the Aegean Sea, and to a lesser extent in the Ionian Sea.

Data/Indicator used

Indicator: Number of tourist arrivals per NUTS2 region in the AIE for the year 2012.



Data used: Eurostat - Number of arrivals at tourist accommodation establishments by NUTS 2 region [tour_occ_arn2] (2012).

Gaps

Generally, touristic data is only available at NUTS2 level, with the exception of bed-places which is available at NUTS3. Hence, tourism centers are not represented specifically, but aggregated to its corresponding administrative level. The data available is limiting as it prevents from showing high-intensity areas just from the official statistics.

Eurostat data are only available at NUTS2 level, though differentiated between coastal and non-coastal areas. Data gaps in West Balkan countries as well as some NUTS2 regions.

Limits of methodology

N/A

Related Pressures

Tourism, through transit/transport and out-of-home stays, is a significant source of pressure on natural resources and therefore the environment destinations. High intensity of tourists that might affect the carrying capacity of tourism system in some areas of the AIE region including:

- Deterioration of water quality (sewage)
- Marine litter
- Physical alteration of coastlines and landscapes (changes in siltation, abrasion)
- Loss of biodiversity (species and habitats)
- Changes in salinity regime

It is worth mentioning that cruises in the Mediterranean are also a source of considerable ecological pressure including water and coastal pollution and seabed destruction (ARLEM, 2013). On average basis, a single cruise line produces around 50 tons of solid waste per year, 7.5 mil of liquid waste, 800,000 lt of waste water from sanitary installations and 130,000 lt of waste water from food catering. Within the AIE, the sudden growth of cruising tourism in the eastern Adriatic (Caric, 2010) is increasing threats in the region linked to serious environmental impacts namely air and water pollution, noise pollution, as well as increasing solid wastes and litter. These threats are expected to increase in the future in the AIE, as a consequence of the expected growth of the cruise sector in this region. It is to note that cruising is one of the fastest growing sectors of the tourism industry. The consumptive level of each passenger on board is much higher than that of local hosting communities; hence cruise tourism has the potential to overwhelm the regions that they visit (Caric & Mackelworth, 2014). In the AIE, the impacts of this growth on the region´s environment is expected to be very high due to the increase in the number of marinas, the number of tourists, and the semi enclosed nature of the Adriatic Sea.

Highlighted features

The map shows the number of mooring capacity per km of coastline within the coastal NUTS3 regions as a measure of intensity of marina activities. Additionally, the map includes a layer of potential pressure level by yachting port intensity. The inserted maps show the most striking cases of high intensity marina pressure. At AIE regional scale, the highest intensity can be observed in the Northern Adriatic as well as along the coastline of the Italian Marche-Abruzzo region.

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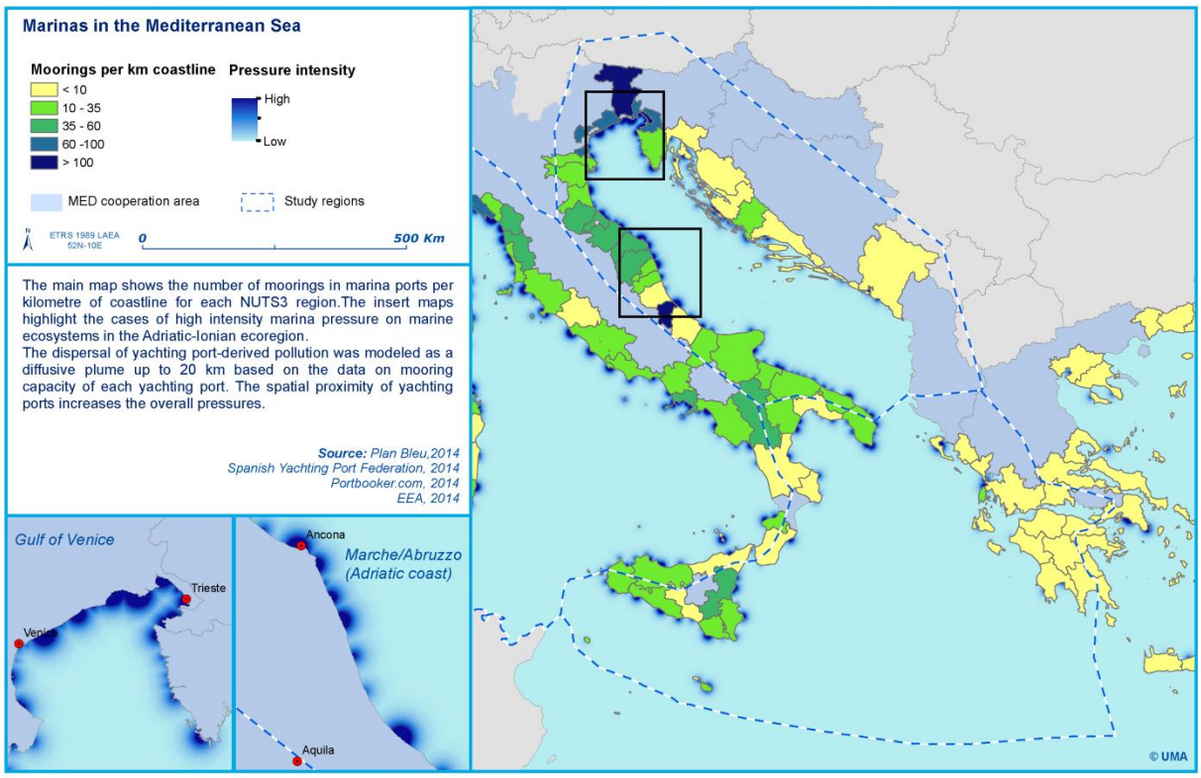

Data/Indicator used

Location and capacity of yachting ports were based on an existing dataset of Plan Bleu, updated and enhanced with data collected from the Spanish yachting port federation and current mooring data from the dedicated web portal Portbooker.com. The coastline is taken from the European Environment Agency.

The dispersal of yachting port-derived pollution was modeled as a diffusive plume based on the data on mooring capacity of each yachting port. The spatial proximity of yachting ports increases the overall pressures.

Gaps

No data are available for Albania. The capacity of Greek yachting ports seems to be underestimated in the available data sources.

Limits of methodology

The diffuse plume represents diverse aspects of pollution both by actual boating (oils spills, marine litter) and by boat maintaining activities (cleaning, painting, etc.) The distance of the potential pressure may vary for types of boats and environmental conditions which may be included in the modelling.

List of proposed indicators

The following table lists the indicators developed and mapped within Med-IAMER. The indicators show the potential pressures and impacts of tourism on coastal (land) and marine environments. **All maps identified by the indicator ID, can be found at the project's web page:**
http://www.medmaritimeprojects.eu/section/med-iamer-redirect/outputs

ID	Indicator description
TO01	Density of tourism capacity: Number of beds per km^2 in coastal areas
TO02	Density of tourism capacity: Number of establishments per km^2 in coastal areas
TO03	Arrivals at tourist accommodation establishments
TO04	Number of moorings in yachting harbours per km of coastline (NUTS3 regions)
TO05	Density of tourism demand: Nights per km2 in coastal areas
TP04	Marine exposure due to port activity: cruise transport
ML01	Marine litter by population influence

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Designed by Plan Bleu