

Integrated water resources and coastal zone management in European lagoons in the context of climate change



THEME: Spatial Planning and Governance

CASE STUDY AREA: Ria de Aveiro (Portugal)

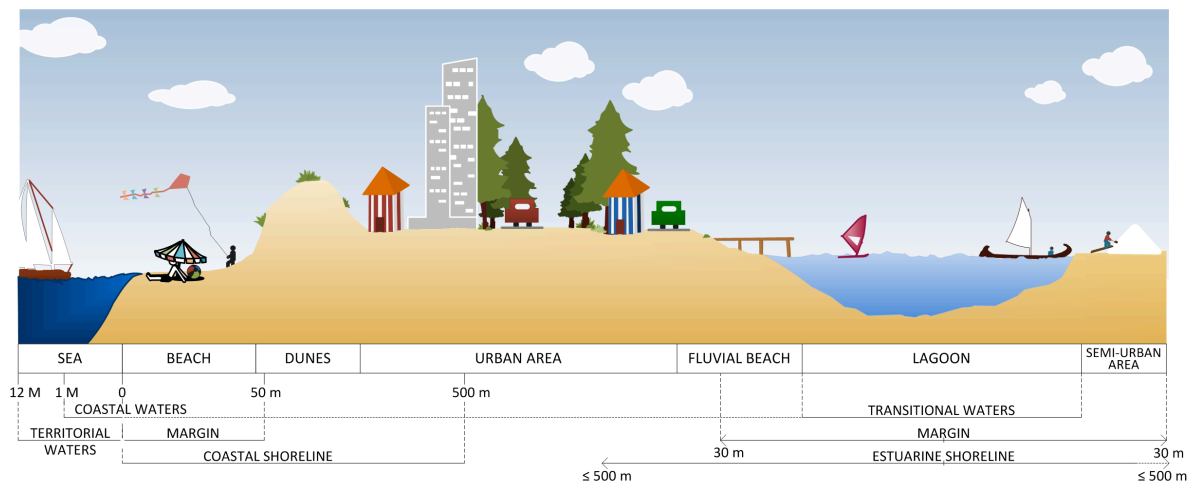
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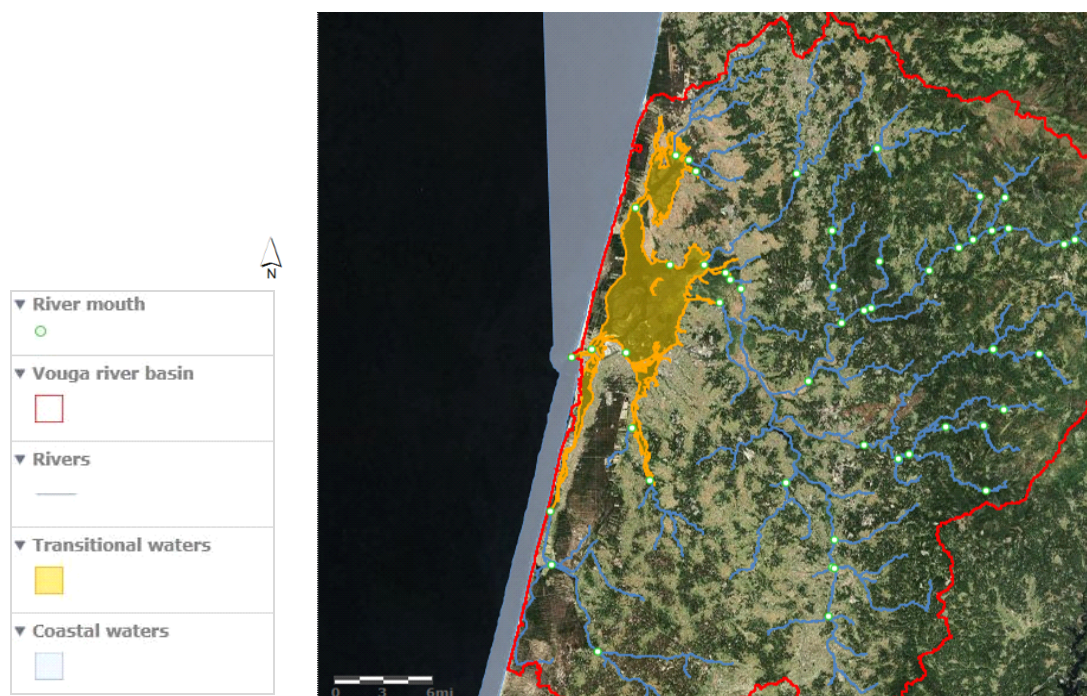
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Spatial Concepts (WFD and others)

According to the Water Framework Directive and the Portuguese Water Law we identify the following water bodies in the Ria de Aveiro region, as outlined below: territorial waters, coastal waters and transitional waters.



Source: Sousa *et al.*, 2011



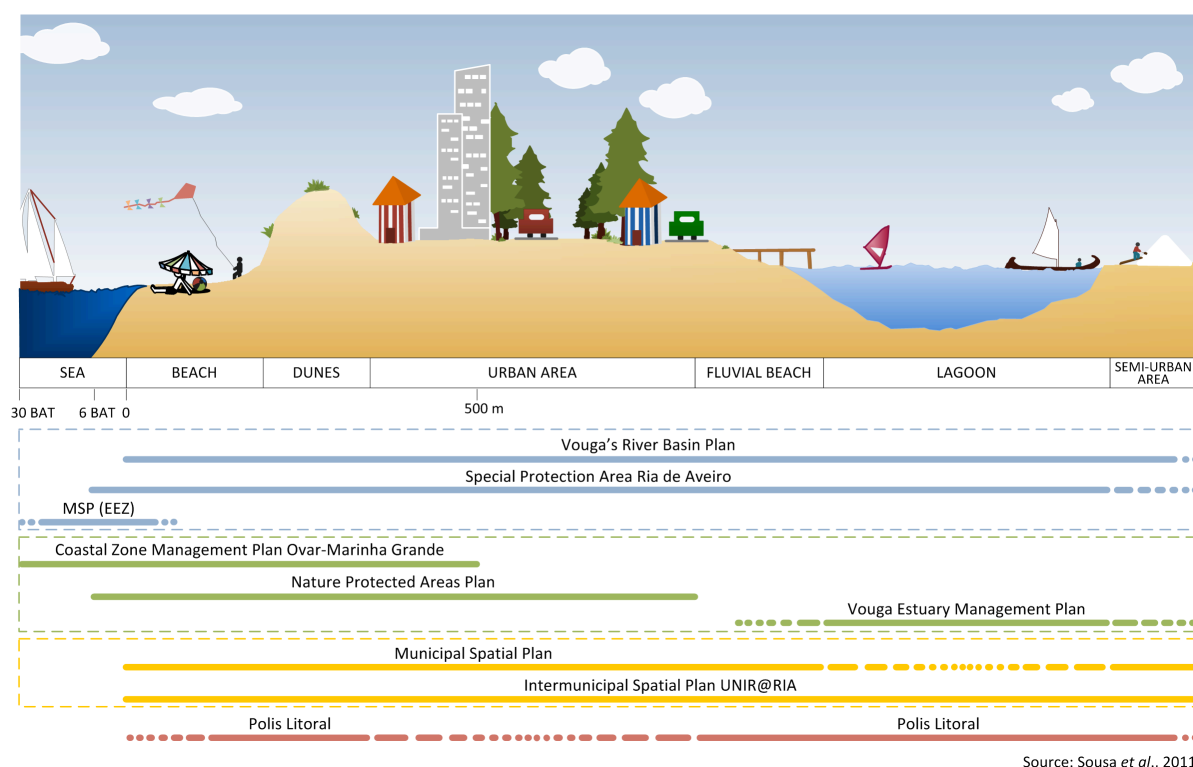
Source: InterSIG, 2011 (<http://intersig-web.inag.pt/intersig/>) and BingMap

Spatial Planning and Management Tools

The policies and practices underpinning Spatial Planning in Portugal involve both multi-sector and multi-level instruments for standardisation and operations. These instruments are allocated to various organisations reporting either directly or indirectly to four ministries. In essence, coastal interventions are composed of instruments developed at one of three hierarchical levels: national, regional and municipal (ANCORIM, 2011, <http://ancorim.aquitaine.fr>). At **National** level we have the Portuguese National Programme for Spatial Planning Policy (PNPOT) – which sets out the main guidelines for the national territory organization, it is the national framework for the other instruments –, the Sectoral Plans (e.g. Transports, Energy, Health, Education, Tourism, Agriculture, Forest, Environment), and the Special Spatial Planning Instruments, which include the Coastal Zone Plans, the Estuary Plans, the Plans for Public Reservoirs and the Protected Areas Plans. At **Regional** level we have the Regional Land Use Plans (PROT) that define the regional strategy for territorial development. At **Municipal** level we have Intermunicipal Spatial Plans (PIOT) that ensure the articulation between PROT and PMOT, and the Municipal Land Use Plans (PMOT), which are regulatory instruments that establish the land use regime of the municipalities. Despite the effort to execute these standardisation and operational initiatives in an integrated manner, this isn't an easy task, at least horizontally, once the initiatives are scattered across several ministries with executive powers in this area. Focusing on Ria de Aveiro and the Project goals, we highlight the:

- Sectoral Plans: Maritime Spatial Plan, Vouga's River Basin Plan, Special Protection Area Ria de Aveiro;
- Special Spatial Plans: S. Jacinto Nature Reserve Protected Area Plan, Coastal Zone Plan of Ovar - Marinha Grande, Vouga Estuary Plan;
- Region Land Use Plan for the Central Region of Portugal;
- Intermunicipal Spatial Plan UNIR@RIA;
- Municipal Land Use Plans of Ovar, Estarreja, Murtosa, Albergaria-a-Velha, Aveiro, Ílhavo, Vagos and Mira.

We also highlight the Polis Litoral Ria de Aveiro, which is an intervention programme for the lagoon improvement and recovery. The following diagram shows the territorial incidence of some of these plans and programmes on the Ria de Aveiro region.



The table below provides some tools for application domain considered important within the Project (Carvalho and Fidélis, 2011).

Domains	Tools
Spatial Planning	National Programme for Spatial Planning Regional Spatial Planning Plan Intermunicipal Spatial Planning Plan Municipal Spatial Planning and Land Use Plan Reservoirs Spatial Planning and Land Use Plan Coastal Zone Management Plan Estuary Spatial Planning and Management Plan
Water Resources	Water National Plan Watershed Management Plan
Nature Conservation	National Natura 2000 Management Plan Protected Areas Land Use and Management Plan
Sea	Maritime Spatial Plan
Harbours and Maritime Transports	Maritime and Harbours Sector National Programme
Tourism	Tourism National Strategic Plan
Fisheries and Aquaculture	Fisheries National Strategic Plan (2007-2013)
Forestry	Forestry Regional Management Plan

References

- Carvalho, T.M. and Fidélis T., 2011. Modelo de Governação para os Planos de Ordenamento de Estuário: caso de estudo da Ria de Aveiro. In: Almeida, A., Alves, F.L., Bernardes, C., Dias, J.M., Gomes, N.C.M., Pereira, E., Queiroga, H., Serôdio, J., Vaz, N. (Eds). Actas das Jornadas da Ria de Aveiro, Universidade de Aveiro, CESAM-Centro de Estudos do Ambiente e do Mar, pp.37-46
- Sousa L.P., Alves F.L., Silva J.V., 2011. Competing Uses on Marine Space: methodological aspects to consider in estuary management plans. *Journal of Coastal Research*, SI 64 (Proceedings of the 11th International Coastal Symposium), 1584-1588. Szczecin, Poland, ISSN 0749-0208

The research leading to these results has received funding from the European Community's Seventh Framework Programme FP7/2007-2013 under grant agreement n°283157