



Harmonization and Networking for
contaminant assessment in the Ionian and
Adriatic Seas

Deliverable T3.1.1 - Screening of best availability of data and information in order to select case study areas

Work Package T3

Case study of contaminant dispersion

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REGION OF WESTERN GREECE - RWG

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1. Objective

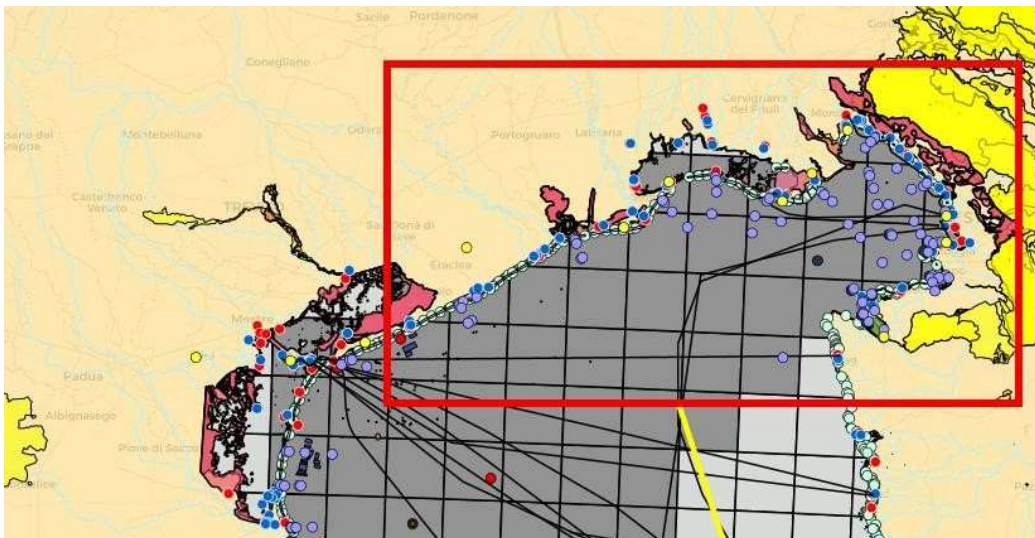
An inventory will be made, within the entire HarmoNIA partnership, on available GIS layers containing relevant environmental data and possible pathways of contaminant dispersion. On this basis, areas of best data and information availability will be selected in order to perform assessment of environmental vulnerability (Activity T3.2). This deliverable will be based on information from the whole partnership and will stimulate cooperation to share information and to adopt a common approach to assess contaminant dispersion.

2. Approach

Taking in account available GIS layers containing relevant environmental data and possible pathways of contaminant dispersion, together with available hydrodynamic, case study areas are suggested. After making proposal, project partners are invited to make remarks and suggestion. At the end we defined three case study areas, two in the Adriatic sea and one in the Ionian sea.

3. Case study areas

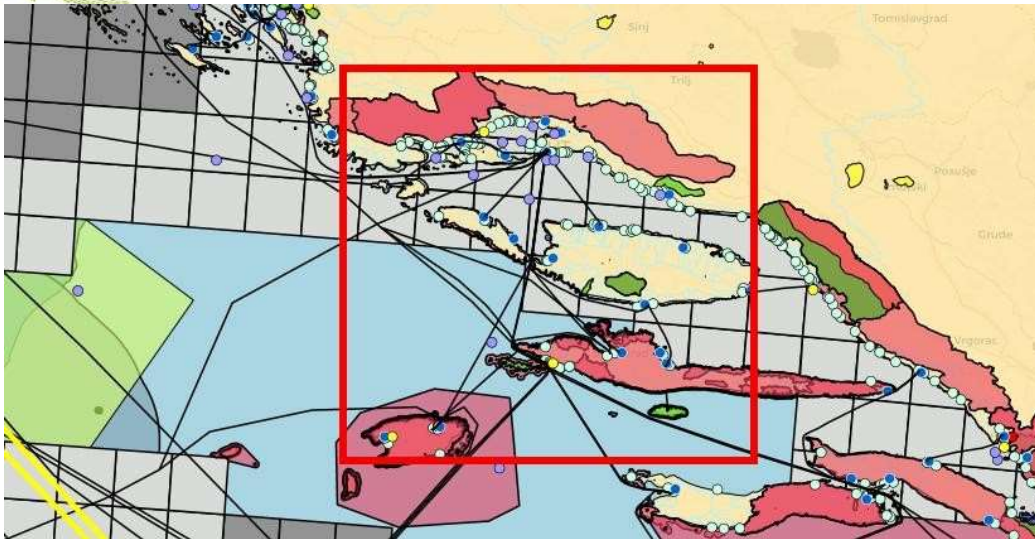
After screening of best availability of data and information, case study areas are defined. Case study areas are defined taking in consideration available data and importance of areas. Areas are defined with bounding box.



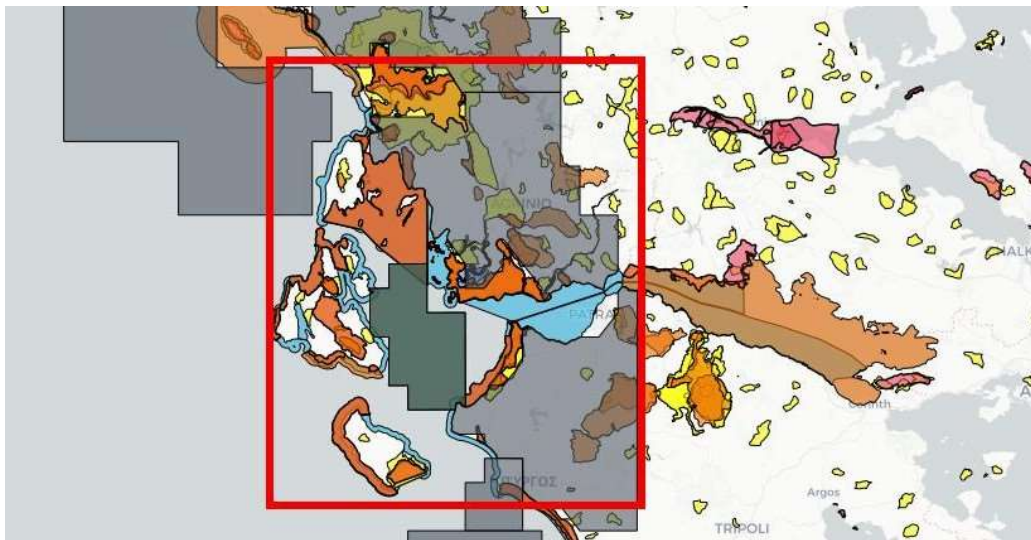
First case study area in Gulf of Trieste (Northern Adriatic)



HarmoNIA



Second case study area from Kaštela bay to island of Vis (central Adriatic)



Third case study area in region of western Greece (Ionian sea)

4. Synthesis of data made available

All so far collected GIS layer are available on HarmoNIA Geoportal <http://jadran.izor.hr/harmonia/> . In total there is 36 GIS layers divided onto 4 groups:

- **Environment**
 1. Potential seabirds sites grid
 2. Biologic protection zone
 3. Protected Areas (HR,MNE,AL)



- HarmoNIA
5. Protected Areas (IT)
 6. Natura 2000 sites in RWG - v.30
 7. Natura 2000 sites
 8. CDDA - nationally designated areas
 9. Ramsar sites
 10. Coast type
 11. Ecologically or Biologically Significant Marine Areas
 12. Coastal Water Bodies in RWG
 13. Transitional Water Bodies in RWG
 14. Bathymetry
 15. Seaoutlets

- **Human activities**

1. Bathing waters areas IT
2. Bathing waters areas SI
3. Bathing waters locations
4. Bathing waters locations SI
5. Mariculture
6. Mariculture SI
7. Oil exploration blocks in west Greece
8. Platform for hydrocarbon extraction
9. Proposed area for modeling

- **Traffic**

1. Motorway of the sea
2. Ferry route
3. Ports and Harbours
4. Marinas
5. Locations of gauges and buoys
6. Artificial reefs
7. Safety zones around offshore installations and structures
8. Safety zones around offshore installation
9. Safety zone around marine pipeline for transport of hydrocarbon

- **Measuring systems**

1. Meteorological stations
2. Monitoring stations
3. Monitoring stations SI (newly added)

Further activities will be to merge some layers, and add some new layers.



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Case Study Selection - Annex to Deliverable T3.1.1

Work Package T3 - Case study of contaminant dispersion

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1. Objective

The objective of the first 6 months of work was the preparation of the hydrodynamic tools for the analysis of dispersion of oil spills and oil slicks at the coast. These objectives have been reached by developing different activities, such as modelling tests, desk based data search, data acquisition from different projects, internal (WP T.3) meetings for the identification of the sites, participation at the kick-off meeting.

2. Identification of modelling domain and forcing for each study site

Three sites (Fig. 1) have been chosen for three different ADRION countries (Gulf of Trieste - IT, Kaštela Bay - HR and Gulf of Patras - GR) according to the best available resolution of model data and simulations set-up. As shown in figures 2 and 3, boundary conditions have been identified and the modeling set-up table including forcing and boundary conditions for the whole basin and for the 3 sites has been set.

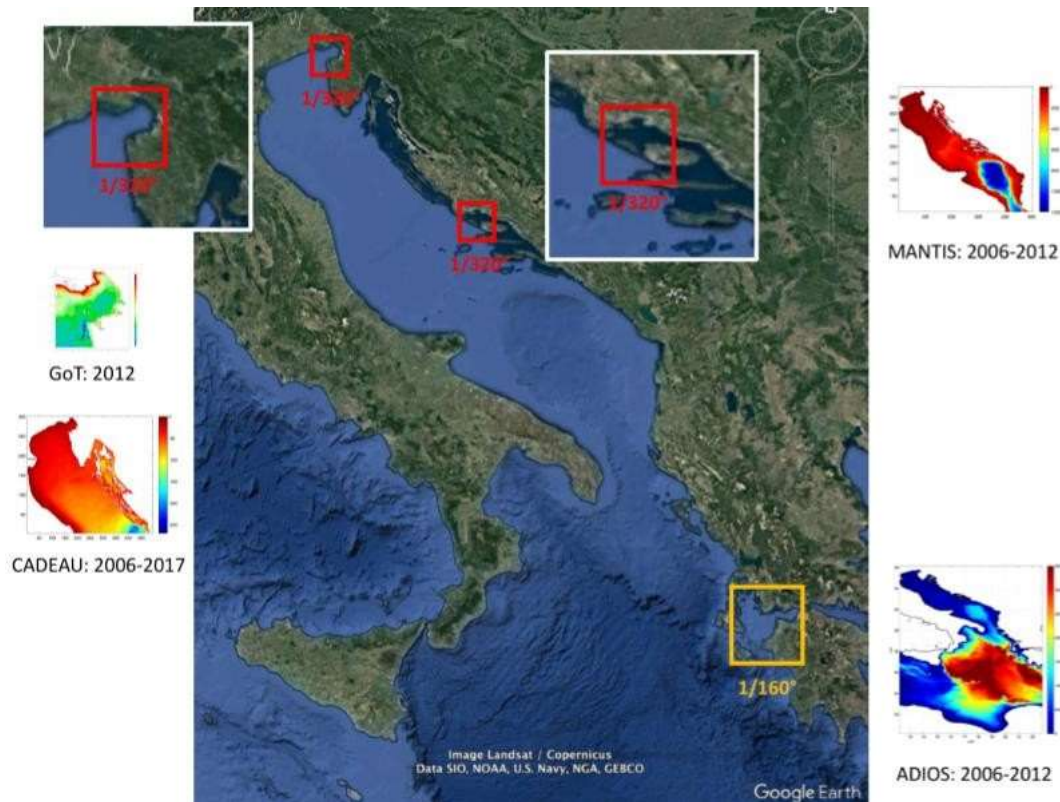


Fig. 1 Identification of modeling domain and forcing for each case study.