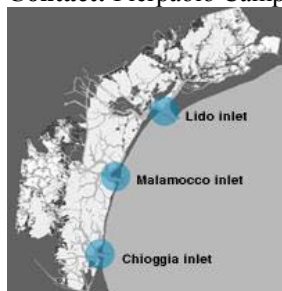


WT 7.15 VENICE LAGOON SYSTEM

Host Institution: CORILA - Consortium for the Management of Research on the Venice Lagoon System
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2. The Lagoon of Venice is situated in North Adriatic, and it is connected to the Northern Adriatic Sea through three inlets

3. Characteristics

<i>Marine System</i>	Tidal lagoon of 550 km ² , includes dunes, tidal channels, bare mudflats, seagrass beds and salt marshes, sea walls protection. Unique combination of hydro-geomorphologic features (defined by centuries of human interventions); natural features including endemic plant species and breeding ground and overwintering for bird species and other significant biodiversity as well as functional dynamics which support human activities in a city endowed with some of the worlds most important cultural heritage.
<i>Watershed</i>	Watershed of 1800 km ² /1 million eq. inhabitants. Two main cities (Venezia, Chioggia) and a number of towns and villages (400,000 residents) are distributed around the lagoon perimeter and on some islands; 14 million tourist presences per year contrast with a resident population of 60,000 in the historical centre. Venice has one of the most important ports in Italy (30 million of tonnes of goods per year and 1 million cruise ship passengers), the third busiest Italian airport and the relics of the core of Italy’s petrochemical and chemical industry (Marghera).
<i>Human Activities</i>	The Venice Lagoon is characterized by a high concentration of human activities and Catchment land use is historically a varying mixture of agricultural and industrial. Urban development and cultural heritage, tourism, recreational activities, commercial and traditional fishing, Industry, Agriculture, Aquaculture, Marine Heritage, Shipping
<i>Impact Responses</i> –	Lagoon morphology erosion, geomorphic changes, bio-chemical pollution, eutrophication, sediment and turbidity, biodiversity loss and habitat destruction, trophic web change, use depreciation, city de-vitalization and cultural losses, social and economy weakness.

4. Policy

<i>Policy issues</i>	Maintaining the ”lagoon status”, between sediment inputs and erosion, and defending from sea storms, implies wide human interventions, which in Venice have continued since the XIV century. The presence of industrial and port activities, together with increased human pressures and intensive agriculture in the drainage basin, in the last century focused on the problem of eutrophication and pollution of water and sediment. Venice and its lagoon was declared “of national interest” by an Italian law in 1973 and a “World Heritage Site” by UNESCO in 1987. Huge economic resources have been spent by the Italian state for the safeguarding of the lagoon, the cultural heritage and for re-vitalizing the city. Cost–benefit ratio of these interventions is still an issue. Considering sea level rise, the physical defence of the city necessitates a mobile barrier system between the lagoon and the sea: after a 30 year-long debate, the political decision has finally been taken. Fishing of clams is a important economic activity (counting 60% of the national production), but its actual sustainability is uncertain: over-fishing, ‘fishing down the food-web’, sediment resuspension, damage to benthos and habitat destruction are recurrent problems. Granting access to the port, placed on the inner lagoon part, implies excavation of contaminated sediment from silted channels. Allowing fruition of some lagoon sites, for tourism and fishery, is necessary for the economic life of the residents, but creates easily non-sustainable conditions for the environment. Considering the sea in front of Venice, multi-regional and multi-national approaches are under consideration for an appropriate and effective management, starting with INTERREG initiatives.
<i>Policy changes</i>	Concerning the major policy changes made or proposed within the data life of the proposed

	<p>Site, they includes:</p> <ol style="list-style-type: none"> a. The exploitation of a Strategic Plan of the Municipality towards 2014, which include several policy action in the environment and sustainable development, b. The Lagoon Morphology Restoration Plan, which is going to be updated c. Plan for reduction of nutrient load from drainage basin (regional authority plan) d. Changing in the lagoon and sea fishery organisation <p>The adoption of a new General Intervention Plan, considering the barrier system</p>
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5. Stakeholders and Institutional Governance

<i>Major organisations</i>	Comune di Venezia (municipality), Provincia di Venezia (district administration), Port Authority, Regione del Veneto (regional level), Magistrato alle Acque -local agency of the Ministry of Infrastructure and Transport, Ministry of Environment
<i>Other leading organisations</i>	Port enterprises , Tourism-related association of enterprises, Fishing-related association of enterprises, Chambre of Commerce

6. Partner Collaboration

<i>SPICOSA Partner Collaborations.</i>	Partners : Corila members, DSE-UNIVE, Università Ca' Foscari, Dipartimento di Scienze Economiche e Dipartimento di Scienze Ambientali; Istituto Nazionale di Oceanografia e Geofisica Sperimentale, OGS
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7. Systems Studies

<i>Long time series</i>	Meteorological data and Relative Sea Water level data, Water quality monitoring – chemical, biological and ecotoxicological parameters, Biodiversity, Sediment pollution, Remote sensing, Economic and social data
<i>Research Projects</i>	<ul style="list-style-type: none"> -MELa1 – monitoring water quality parameters and understanding their evolution 5 years long.. PI Pastres; Solidoro; Rismondo; Zirino. -DRAIN freshwater and nutrient load from drainage basin. PI Marcomini; Zonta -ORIZZONTE 2023 evaluation ecological status. -First Research Programme CORILA 2000-2003and Second Research Programme of CORILA 2004-2007, includes researches on: Cost-benefits analysis of land reclamation of brownfields in the Venice lagoon, Characteristics and conditions for a model of post-industrial sustainable development for Venice, Speciation and flow of pollutants, Ecological quality indices, biodiversity and environmental management for lagoon areas, Trophic chain and primary production in the lagoon metabolism, Meteo-oceanographic conditions and coastal zone water quality, Erosion and sedimentation processes in the Venice lagoon.
<i>Socio-economic study</i>	<ul style="list-style-type: none"> -Many social or economic studies have been conducted relating to the coastal zone natural resources, by CORILA and others, e.g. a study concerning the incentives needed for a more “ecological” exploitation of fishing resources. CORILA participates in ENCORA EU concerned action, as Task Leader for Economy issues in ICZM