### **SHORT BOOK**

### **PO DELTA OBSERVATORY**

### PO DELTA VENETO REGION AUTHORITY



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### POLESINE CAMERINI MARE PILOT AREA

Polesine Camerini is a locality in the Municipality of Porto Tolle, in the central part of the Po delta river area. It is enclosed between two branches of the Po river: the Po di Maistra in the North and the Po di Gnocca in the South. Another branch crosses the Municipality: the Po di Venezia.

The territory is characterised by the presence of fishing wetlands locally known as "Valli", lagoons and dunes; indeed, about the 27% of the Municipality is occupied by brackish water wetlands. There are farming areas in the Western part with well-developed rice fields.



### THREATS AND ENABLING FACTORS (T&EF) TO/FOR SUSTAINABLE TOURISM

### THREAT: CLIMATE CHANGE AND MORPHOLOGICAL STABILITY

Most of the Italian coastlines are experiencing high human pressures, mainly due to urbanisation, tourism and industry. The area of Polesine Camerini is characterised by a low-lying area with sandy beaches and marshlands, where erosion is affecting the coastline.

Also, land subsidence is one of the main threats since it is imaginable as one of the main aspects responsible for future sea-level rise which is expected to be much higher than calculated by recent models. For these reasons all the area is at risk of flooding.

The combined effects of urbanisation, construction of roads and railways, building of extensive defence structures, extraction of sediments from riverbeds with the erosion phenomena are lowering the land-surface elevation, with the consequence of an increase in the rise of sea-levels that is threatening industrial areas, urban zones and the surrounding vast reclaimed marshland. This is resulting in a serious risk of flooding and inundation, particularly in view of the on-going climate change.

#### THREAT: LITTORALISATION AND URBANISATION

Polesine Camerini is an area that is very sensitive to coastal urbanisation, which is increasing intertemporally in Italy. Furthermore, littoralisation and subsequent urban sprawl are considered the main causes of urban functional disorganisation, consequently causing impacts at territorial level and affecting the coastal area.

#### THREAT: TOURISTIC FLUXES AND CARRYING CAPACITY

The area is not exploited for tourism except for spontaneous and uncontrolled "ecotourism" which is impossible to be measured. Therefore, the computing of the Carrying Capacity could give an important contribution in order to improve a correct management and possibility to exploit the site.

Indeed, the approach to new sustainable tourism offers is evolving the area in order to ensure a proper use of environmental resources by safeguarding economic introits, social and traditional aspects.

# THREAT: POLLUTION AND OTHER ANTHROPOGENIC PRESSURES AFFECTING ECOSYSTEMS

The area is quite artificialised, with natural areas in a fewer extent compared to artificial areas. Semi-natural areas (agricultural land) are also widespread in the area. Habitat loss is alarming, and most of natural land cover have been replaced by agriculture fields. Regarding water pollution, due to the presence of an

important industrial area, today dismissed, it is probable that local waters could be polluted. Furthermore, eutrophication phenomena happened in 2016 in Porto Tolle.

Regarding waste production, the Municipality of Porto Tolle revealed a production per capita above the EU and regional average. On the other hand, the Municipality has a low light pollution.

## THREAT: CONFLICTS AMONG DIFFERENT USES ON LAND AND AT SEA AND LAND-SEA INTERACTION

As for the rest of the Mediterranean Region, the area is a focal point of interactions between different and conflicting socio-economic activities providing synergies and creating conflicts affecting the whole region.

The impacts from socio-economic activities and the constant competition over the allocation of natural resources have led to severe alternation both at local and regional level on coastal and marine ecosystems; coastal and maritime tourism, fisheries and aquaculture, energy extraction and exploration, agriculture, and maritime transport are only few of the activities impacting on the area.

On the other hand, tourism is strictly connected to a healthy environment, so another conflict is the co-existence of touristic activities and other economic sector such as: conflicts concerning the use of space, exploitation of the same coastal and marine resources, and conflicts related to the degradation of natural ecosystems.

The multiple uses of the coastal area is making it more vulnerable to human and natural hazards, causing adverse effects on each other (land use conflicts) and on the coastal marine environment (anthropogenic activities – marine environment conflicts). These conflicts weaken the ability of the coastal area to provide the necessary ecosystem services upon which humans and other life depend.

### ENABLING FACTOR: COASTAL PROTECTION MEASURES

The coastal management of the Po Delta area is complex and structured since there are many protection measures in the Veneto Region, some of them focusing on the Porto Tolle coastal area.

The "Piano Paesaggistico Regionale d'Ambito – Ambito Arco Costiero Adriatico dal Po al Piave" was adopted in 2012, the ICZM plan "Gestione Integrata della Zona Costiera – Progetto per lo studio ed il monitoraggio della linea di costa per la *definizione degli interventi di difesa dei litorali*", drawn up in 2016, reported an upto-date description of the state of the coast at a multi-disciplinary level (environmental, social, morphological, anthropic, etc.) and an accurate estimate of the sedimentary balance based on knowledge of natural dynamics and of the coastal defence actions.

The adopted protection measures from the sea were built at the beginning of 2000 but have not solved the erosion problem.

### ENABLING FACTOR: ECOSYSTEM PROTECTION

Polesine Camerini is a very small village within the Po Delta, its natural areas are mostly composed of wetlands, while most of the territory is covered by arable land. Seaside tourism and ecotourism are the main local economy drivers, and overall, they are increasing in the area. Fishing and agriculture are also important economic activities for the area, although they are decreasing over time.

The area is included in a vast Natura 2000 site: Delta del Po: tratto terminale e delta veneto. It has different environments, each one with its own features: countryside with paleo-riverbeds, fossil dunes, embankments, fishing lagoons, brackish inlets and sandbars.

Polesine Camerini is under the Po Delta Veneto Region Authority, a Regional Park that actively promotes organised tourism activities, from the simplest bike tour along the Po river branches, to boat tours, bird watching and nature photography thanks to concealed observation sites. The area is officially protected at regional and European level.

The presence of an industrial factory that is no longer working could potentially improve site management through conversion of the structure for ecotourism purposes, enabling the development without any land use transformation.

#### ENABLING FACTOR: TRANSPORT AND ACCESSIBLITY

The nearest airport to Polesine Camerini is in Venice, almost 105km away. The best way to access Polesine Camerini territory is by road via bus, car or by train (the nearest train station is 75km away). The nearest cruise/ferry passenger service is located in Venice. The distance to transport hubs helps to highlight the high wild and environmental value of the area which is appreciated for ecotourism purposes.

### ENABLING FACTOR: GOVERNANCE

As with other tourist destinations, Polesine Camerini is carrying out a huge governance process in order to make optimal use of the environmental resources to maintain the essential ecological processes and preserve the natural heritage and biodiversity of the area.

One of the main objectives is to maintain the socio-cultural heritage of the territory, conserve buildings and living the traditional values and at the same time enhance economic activities including a stable employment rate and income-earning opportunities.

It is important to consider the negative impacts given by the above-mentioned sectors, in order to contain them and protect local values.

### INTERACTION AMONG THREATS AND ENABLING FACTORS

The pilot area is facing an important instability due to urbanisation, human pressures, tourism pressures, littoralisation, and climate change impacts. However, it has a really important value in terms of environment and natural heritage, which is highlighted by a network composed of 9 municipalities located in the Po Delta area and by tourism and economic operators which are trying to spread out their traditions and create new tourism offers able to satisfy as much public as possible.

This is strictly linked to a sustainable way of using resources and a sustainable development of new offers.

Furthermore, at local and regional level many measures and plans are available to put in effort for sustainable development and the defence of the coastal area, which is greatly threatened by the sectors mentioned above.

The analysis of the threats and enabling factors that was carried out thanks to the CO-EVOLVE project is really helpful to understand the evolution of the territory and to act in consequence to preserve nature and also cultural heritage from a social, economic and environmental point of view.

### THE FIRSTS RESULTS

The establishment of the foundation for the Polesine Camerini observatory, started with the progress of the CO-EVOLVE project in order to verify the effective participation of the entities that could be involved in it. Thank to this, an environmental and tourist observatory will be established, which will not give only indications on sustainability tourism measures but will also make a local and international reference for scientific knowledge in the environmental and tourism fields of the Upper Adriatic basin.

### THE STRATEGY OF THE AREA

The strategic line identified for Polesine Camerini area aims to develop programmes, activities and measures for generating, sharing, spreading and transferring knowledge of tourism activity in the entire Po River Delta and, at the same time, supporting the decision-making process, examining strategic issues and enriching public debate related to sustainable tourism.

The generation of knowledge in the field of green tourism is essential for managing and making decisions in ranking destinations and in the promotion of paths of different experiences. The Po River Delta is aware of its importance and has made considerable efforts to increase its visibility and attractiveness. It is necessary to continue developing knowledge of other aspects through collaboration with universities and R&D&I centres, in particular those lines of knowledge that are useful for supporting tourist policies for the coming years.

Furthermore, there is need to opt for new, smart tools for gathering, managing and displaying information, because open knowledge is the main key to sustain and design efficient, peculiar, ecosystem management policies integrated with tourism development. For the Po River Delta, it is essential to disseminate as widely as possible the knowledge generated in this field at a time when tourism has taken centre stage in the public debate.

The elements needed to grasp the complexity of this phenomenon must be provided to tourism players, such as politicians, businesses and public stakeholders, underlining the opportunities and challenges of being one of the most important European ecological and naturalistic destinations.

### WHO WE ARE

CO-EVOLVE is a three-year project that aims at analysing and promoting the coevolution of human activities and natural systems in touristic coastal areas, allowing for sustainable development of tourism activities based on the principles of Integrated Coastal Zone Management (ICZM)/Maritime Spatial Planning (MSP).

It couples a presently unavailable analysis at MED level of threats and enabling factors for sustainable tourism with local studies of seven representative Pilot Areas, to demonstrate through pilot actions the feasibility and effectiveness of an ICZM/MSP-based planning process.

Finally, CO-EVOLVE contributes to the Strategic Theme 2 (Joint Action 2.1) of the Bologna Charter Joint Action Plan: <u>http://www.bolognacharter.eu/</u>.

### CONTACT US





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