

Annex I to the Biosphere Reserve Nomination Form, January 2013

MABnet Directory of Biosphere Reserves

Biosphere Reserve Description¹

Administrative details

Country: Italy

Name of BR: Saline di Sicilia

Year designated: *(to be completed by MAB Secretariat)*

Administrative authorities: Camera di Commercio Industria Artigianato e Agricoltura (CCIAA) of Trapani (TP) (<https://www.tp.camcom.it/>)

Name Contact: Secretary General of the CCIAA of Trapani

Contact address: postal address: CCIAA di Trapani, C.so Italia 26, Trapani (TP), Italy; phone number: +39- 0923/876.301 - 302; e-mail: mab.salinedisicilia@tp.camcom.it.

Related links: (web sites): <https://www.candidaturamabsalinedisicilia.it/>.

Social networks: https://www.instagram.com/p/DQJ732sDJH9/?img_index=1

Description

General description: *(Site characteristics in 11.1; human population in 10)*

The landscape of the Saline di Sicilia candidate area consists of a very low-altitude coastal plain, characterised by the presence of an integrated system of coastal and lagoon wetlands, including the Stagnone di Marsala, and historic salt pans that are still active, which represent a humanised but ecologically significant landscape.

The context is completed by residual marshy areas and marginal mudflats, which play an ecological role of transition between the marine and terrestrial environments, and by discontinuous sandy coastal dunes and ridges, with psammophilous vegetation typical of Mediterranean environments.

In the areas behind it, a coastal agricultural plain develops in landscape continuity with the salt pans, while the system is visually closed, towards the interior, by weak peripheral hilly reliefs that define the overall morphological context.

Overall, it is a Mediterranean coastal-lagoon landscape with a strong integration between nature and traditional human activities, characterised by a high level of interaction between geomorphological and hydrological dynamics and historical production practices. Two major (Trapani and Marsala) and two minor (Misiliscemi and Paceco) urban settlements are included in the transition zone; they are home of people working for the local salt production and traditional agricultural activities (olive and wine production), as well as fishery and tourism.

¹ To be posted on the MABnet once the nomination has been approved. The numbers refer to the relevant sections of the nomination form.

Major ecosystem type: The major ecosystems present in the Saline di Sicilia are the following: (a) Coastal and lagoon wetlands; (b) Traditional agricultural environments; (c) Coastal and marine ecosystems (d) Urbanized areas and historical settlements.

Major habitats & land cover types: (a) Coastal brackish wetlands and salt pan evaporation basins (b) Halophilous vegetation and Mediterranean salt steppes; (c) Coastal lagoons and shallow marine waters (d) Coastal dunes and psammophilous vegetation (e) Mediterranean scrub and coastal garrigue area; (f) Traditional agricultural areas (g) Urban areas, infrastructures and historical settlements.

Bioclimatic zone: Semi-arid

Location (latitude & longitude):

Cardinal points	Latitude	Longitude
Central point	37.9209269667738	12.4977492860835
Northernmost point	38.0341743424264	12.5329159517582
Southernmost point	37.7862216271161	12.444371633
Westernmost point	37.9676869140821	12.603609270351
Easternmost point	37.8921366257905	12.4294407855855

Total Area (ha): 10.172,6

Core area(s): 932,76

Buffer zone(s): 3.288,07

Transition area(s): 5.951,77

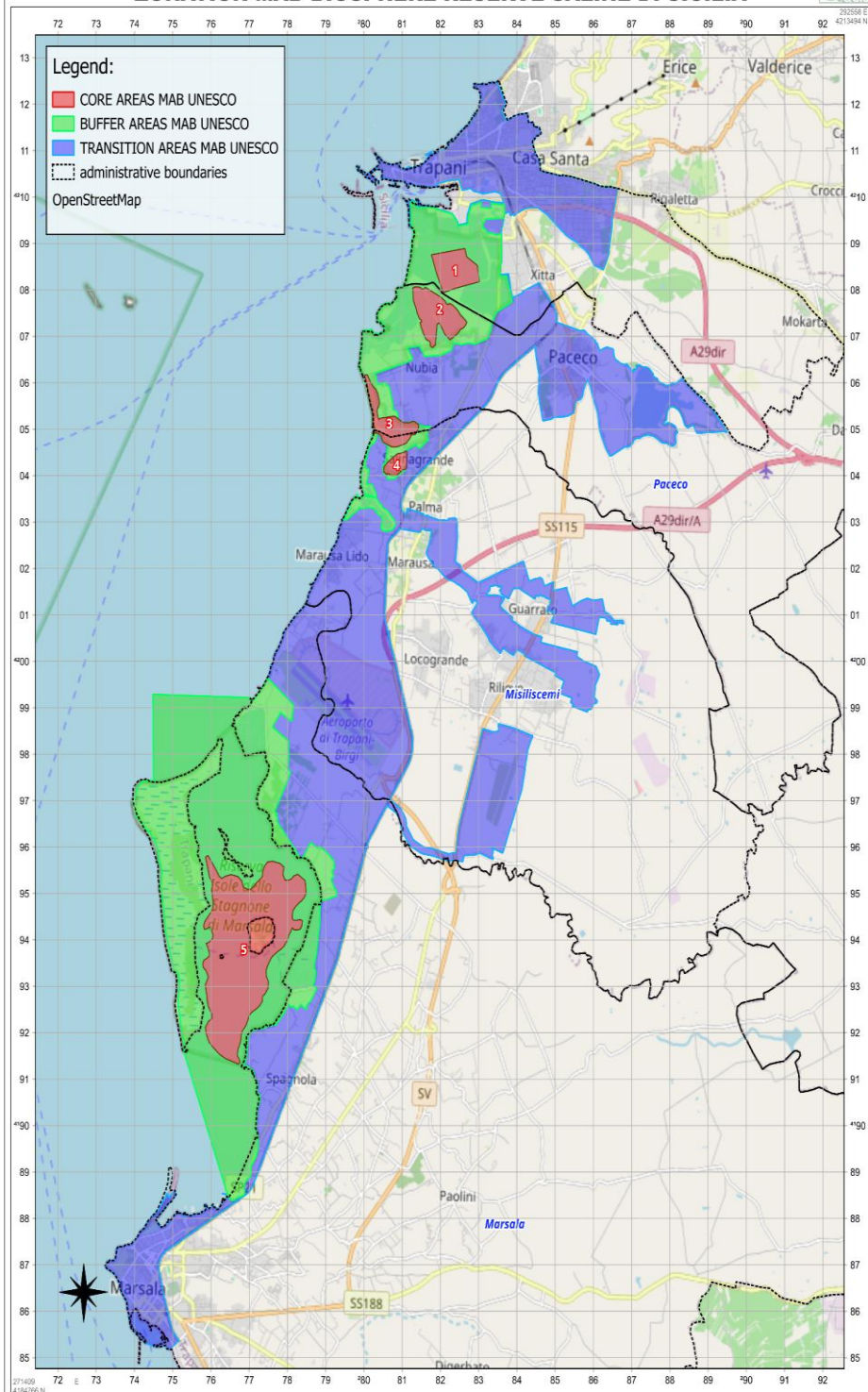
Different existing zonation: Ramsar site (Trapani and Paceco Salt Pans) , Natura 2000 site (Marsala Lagoon and Trapani Salt Pans) , Regional Oriented Reserves of Trapani and Paceco and Stagnone

Altitudinal range (metres above sea level): 0-7 mts on the sea level

Zonation map(s):

Scale 1:80.000

ZONATION MAB BIOSPHERE RESERVE SALINE DI SICILIA



Map CRS: EPSG:25833
 Coordinate Units: Metri
 Map Scale: 1:80.000
 Project File: TRAPANI MAB.qgz
 Page Size: 297 x 420 mm
 Made with: QGIS 3.40 on Windows

0 1 2 3 4 5
 kilometers
 Scale 1:80.000



ZONATION MAB BIOSPHERE RESERVE SALINE DI SICILIA

Main objectives of the biosphere reserve

Brief description

The main objectives of the proposed Biosphere Reserve can be summarised in the following three areas:

- (1) Contribute to the protection and enhancement of the cultural landscapes of the Trapani and Paceco salt pans and the habitats they have generated over time and space;
- (2) Contribute to the design of a shared agenda for the entire designated territory that enhances the existing and future innovative projects with a view to pursuing the objectives of the 2030 Agenda;
- (3) Organize the proposed area as a large open-air sustainability laboratory, where research, experimentation and training activities on sustainability issues can be organized with a Euro-Mediterranean vision.

Research

Brief description

The Saline di Sicilia" Biosphere Reserve is designed as a living laboratory for studying Mediterranean coastal wetlands, traditional salt systems, and the interactions between biodiversity conservation, production activities, and climate change. Research and monitoring activities are aimed at supporting the Reserve's adaptive management and the implementation of the Management Plan through the systematic collection of environmental, socioeconomic, and cultural data

Monitoring

Brief description (16.1.1)

The Saline di Sicilia area has been subject to long-term scientific research and environmental monitoring focused on biodiversity conservation, hydrological processes, cultural heritage, and sustainable development. Monitoring activities have enabled regular assessment of habitats and species of conservation concern, particularly within Natura 2000 sites, while supporting the management of protected areas and traditional salt-production systems. Research has also examined water quality, salinity dynamics, and ecosystem functioning, providing essential knowledge for habitat conservation. Recent studies have addressed climate change impacts and coastal vulnerability, contributing to adaptation planning. In parallel, socio-economic monitoring has evaluated tourism, local development, and community perceptions, supporting environmental education and sustainable tourism initiatives.

Specific variables (fill in the table below and tick the relevant parameters)

Abiotic		Biodiversity	
Abiotic factors		Afforestation/Reforestation	
Acidic deposition/Atmospheric factors		Algae	X
Air quality	X	Alien and/or invasive species	X
Air temperature	X	Amphibians	
Climate, climatology	X	Arid and semi-arid systems	X
Contaminants	X	Autoecology	
Drought	X	Beach/soft bottom systems	X
Erosion	X	Benthos	X
Geology		Biodiversity aspects	X
Geomorphology	X	Biogeography	
Geophysics		Biology	X
Glaciology		Biotechnology	
Global change	X	Birds	X
Groundwater	X	Boreal forest systems	
Habitat issues	X	Breeding	X
Heavy metals		Coastal/marine systems	X
Hydrology	X	Community studies	
Indicators	X	Conservation	X
Meteorology	X	Coral reefs	
Modeling		Degraded areas	X
Monitoring/methodologies	X	Desertification	X
Nutrients	X	Dune systems	X
Physical oceanography		Ecology	X
Pollution, pollutants	X	Ecosystem assessment	X
Siltation/sedimentation	X	Ecosystem functioning/structure	
Soil	X	Ecosystem services	
Speleology		Ecotones	
Topography		Endemic species	X
Toxicology		Ethology	X
UV radiation	X	Evapotranspiration	X
		Evolutionary studies/Palaeoecology	
		Fauna	X
		Fires/fire ecology	
		Fishes	X
		Flora	X
		Forest systems	
		Freshwater systems	X
		Fungi	X
		Genetic resources	X
		Genetically modified organisms	
		Home gardens	

	Indicators	X
	Invertebrates	X
	Island systems/studies	X
	Lagoon systems	X
	Lichens	
	Mammals	X
	Mangrove systems	
	Mediterranean type systems	X
	Microorganisms	X
	Migrating populations	X
	Modeling	
	Monitoring/methodologies	X
	Mountain and highland systems	
	Natural and other resources	X
	Natural medicinal products	
	Perturbations and resilience	X
	Pests/Diseases	
	Phenology	
	Phytosociology/Succession	
	Plankton	X
	Plants	X
	Polar systems	
	Pollination	
	Population genetics/dynamics	X
	Productivity	
	Rare/Endangered species	X
	Reptiles	X
	Restoration/Rehabilitation	X
	Species (re) introduction	X
	Species inventorying	X
	Sub-tropical and temperate rainforest	
	Taxonomy	X
	Temperate forest systems	
	Temperate grassland systems	
	Tropical dry forest systems	
	Tropical grassland and savannah systems	
	Tropical humid forest systems	
	Tundra systems	
	Vegetation studies	X
	Volcanic/Geothermal systems	
	Wetland systems	X
	Wildlife	X

Socio-economic		Integrated monitoring	
Agriculture/Other production systems	X	Biogeochemical studies	X
Agroforestry		Carrying capacity	X
Anthropological studies		Climate change	X
Aquaculture	X	Conflict analysis/resolution	X
Archaeology	X	Ecosystem approach	X
Bioprospecting		Education and public awareness	X
Capacity building	X	Environmental changes	X
Cottage (home-based) industry		Geographic Information System (GIS)	
Cultural aspects	X	Impact and risk studies	X
Demography	X	Indicators	X
Economic studies	X	Indicators of environmental quality	X
Economically important species	X	Infrastructure development	X
Energy production systems	X	Institutional and legal aspects	X
Ethnology/traditional practices/knowledge	X	Integrated studies	X
Firewood cutting		Interdisciplinary studies	X
Fishery	X	Land tenure	
Forestry		Land use/Land cover	X
Human health	X	Landscape inventorying/monitoring	
Human migration		Management issues	X
Hunting	X	Mapping	X
Indicators	X	Modelling	
Indicators of sustainability	X	Monitoring/methodologies	X
Indigenous people's issues		Planning and zoning measures	X
Industry	X	Policy issues	X
Livelihood measures	X	Remote sensing	
Livestock and related impacts		Rural systems	X
Local participation	X	Sustainable development/use	X
Micro-credits		Transboundary issues/measures	
Mining		Urban systems	X
Modelling	X	Watershed studies/monitoring	X
Monitoring/methodologies	X		
Natural hazards	X		
Non-timber forest products			
Pastoralism			
People-Nature relations	X		
Poverty			
Quality economies/marketing	X		
Recreation	X		
Resource use	X		
Role of women			
Sacred sites			
Small business initiatives	X		

Social/Socio-economic aspects	X		
Stakeholders' interests	X		
Tourism	X		
Transports	X		