

# INCEPTION REPORT

## CAMP *Italy* Project



Note:

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### List of Acronyms

BP	Blue Plan/RAC
CAMP	Coastal Area Management Programme
CPs	Contracting Parties
EU	European Union
FS	Feasibility Study
GIS	Geographic Information Systems
ICZM	Integrated Coastal Zone Management
INFO/RAC	Information and Communication Regional Activity Centre
MAP	Mediterranean Action Plan
MCSO	Mediterranean Commission on Sustainable Development
MEDPOL	Marine pollution assessment and control component of MAP
MELS	Ministry of Environment, Land and Sea
NGO	Non-Governmental Organisation
NPC	National Project Coordinator
PAP/RAC	Priority Actions Programme Regional Activity Centre
PES	Payments for Ecosystem Services
PTCO	Project Technical Coordination Office
RAC	Regional Activity Centre
SCP	Regional Activity Centre for Sustainable Consumption and Production
SPA/RAC	Regional Activity Centre for Specially Protected Areas
TC	“Tavolo CAMP”, the CAMP Steering Committee
TEEB	The Economics of Ecosystems and Biodiversity
TORs	Terms of Reference
UNEP	United Nations Environment Programme

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# I. INTRODUCTION

## 1.1 GENERAL FRAMEWORK

The Coastal Area Management Programme (CAMP) of the Mediterranean Action Plan (MAP) promotes pilot projects in coastal areas of the Signatory Countries to the Barcelona Convention, in which Integrated Coastal Zone Management (ICZM) is the main tool for achieving sustainable development. Thereby, since 1989, when the Programme was approved by Contracting Parties (CPs), CAMP is a “country-driven” Programme aimed at helping the Mediterranean Countries in their efforts towards sustainable development. The signing of the ICZM Protocol within the Barcelona Convention Framework, in Madrid on 21 January 2008, represents a very significant milestone in this process.

The activities of the Programme are concentrated in the coastal areas of Mediterranean Countries. The interested Country is proposing each project, and when it is being adopted by the CPs at their biannual meetings, the preparatory activities could start. **The projects are being developed by the local and national experts with the assistance of MAP and its Components, each one of them being involved in the activities falling within its area of expertise.** The Priority Actions Programme Regional Activity Centre (PAP/RAC) is co-ordinating MAP efforts in each CAMP project.

The **general goals** aimed at the implementation of the CAMP projects in coastal areas are as follows:

- Develop strategies and procedures at local, regional and national levels for sustainable development, environmental protection and the rational use of coastal and marine areas, which may be useful as experiences that form the basis of the formulation of Mediterranean strategies for sustainable development;
- Identify, adapt and test the methodologies and tools for sustainable development in the coast of this area in a practical context;
- Contribute to more training and capacity building of institutional officials and technicians at the national, regional and local levels.
- Promote a more extensive use at the national, regional and local levels of the experience reached through the CAMP Programme and its individual activities, and create the conditions that ensure there is a continuation of these activities.

The proposal to start up a Coastal Area Management Programme (CAMP) Project on the Italian coastal zone was presented by the Italian authorities to UNEP-MAP in July 2007 and was taken into consideration and approved during the 15th meeting of the Contracting Parties to the Barcelona Convention (Almeria, Spain, 15-18 January 2008).

Following the approval of the Contracting Parties, the related Feasibility Study (FS) was launched in five selected coastal areas of Italy, based on the agreement of the representatives of relevant Italian institutions, which signed a specific Memorandum of Understanding (Rome, 2 December 2008). The Feasibility Study was prepared for MAP PAP/RAC by an independent consultant in cooperation with the MELS and the 5 Regions involved.

A series of activities were organised during the Feasibility Study preparation phase, among which the following can be highlighted:

- first meeting of the Project Steering Committee (named “Tavolo CAMP”, established to ensure the continuous strategic and operational coordination within the project among all the involved authorities), on 26 February 2009;
- first technical meeting of the “Operational Body” on 7 May 2009;
- Feasibility Studies prepared by the participating Regions (June 2009);
- bilateral meetings between the General Coordinator and the participating Regions (February 2010);
- “Tavolo CAMP” meetings in 2010-11 (a new General Coordinator was appointed, since 4 November 2011);
- first version of the CAMP Italy Feasibility Study transmitted to PAP/RAC (10 October 2011);
- second version of the CAMP Italy Feasibility Study transmitted to PAP/RAC (27 February 2012);
- telematic meetings between the participating regions and the new appointed General Coordinator (30 November 2012);
- third version of the CAMP Italy Feasibility Study transmitted to PAP/RAC (12 December 2012);
- meeting with PAP/RAC and final approval of the latest version of the CAMP Italy Feasibility Study (18 December 2012).

The Agreement for the CAMP Italy Project was signed on 27 March 2014 on the basis of the preparatory activities that took place prior to the signature between the Ministry of Environment, Land and Sea (MELS) and UNEP-MAP. A 2-year implementation project is envisaged (May 2014 – May 2016) as well as an additional implementation of post Project activities in the following two years.

The design of the CAMP Italy Project recognizes and incorporates the following fundamental considerations:

- CAMP Italy is a “country-driven” project: this emphasizes the Project which is designed to respond to national, regional and local priorities. It will operate according to the experiences and realities of the Italian legal, administrative and cultural institutions and will utilize the available national and local expertises. MAP technical assistance will be targeted to general coordination and to issues in which national expertise and resources require support and supplementary inputs.
- The CAMP Italy Project is based on an integrated approach to marine and coastal environment and development issues. This emphasizes that project activities will cut across protection and development problems, harmonize public sector priorities and private sector pressures, and provide an integrated strategy for the common goal of achieving development in the region within a sustainable management policy framework.
- Consequently, the CAMP Italy Project, far from compromising development objectives, aims to incorporate the principles of sustainable development and



integrate coastal management in the development process to better articulate resource protection and development objectives.

A major goal of the CAMP Italy Project is to encourage the implementation of national strategies for integrated coastal zone management. In accordance with the implementation of the ICZM Protocol in the Mediterranean, the involvement of some regions in CAMP Project, will be a driving force for the participation of other coastal regions in early stages of consultation and sharing strategy. In fact, the CAMP Italy Project helps to integrate, standardize, share and implement tools and procedures aimed at adapting the territorial planning, with implications for the management of coastal resources and assets.

In summary, the implementation of the CAMP Italy can be justified by the following reasons:

- Diversity and representativeness of values and criticalities (environmental, cultural and socio-economic) compared to the national context and the Mediterranean Basin;
- Territorial diversity expressed in terms of environmental, cultural and socio-economic aspects as a prerequisite for a high degree of intensity and complexity of multi-dimensional relationships;
- The spatial dimension of the preferential area as the context for the trial of the action;
- Information flow and shared project guidelines among CAMP stakeholders;
- Adoption of "bottom-up" and "step-by-step" strategies;
- Promotion of project initiatives that consolidate some experiences of inter-institutional coordination already in place.

Through the CAMP Italy actions the involved administrations will take profit of:

- An additional tool for the protection of coastal ecosystems, a leverage tool in case of conflict resolution;
- The opportunity to learn new methodologies with reference to the inter-level planning and the strengthening of inter-institutional coordination;
- The start of a processes of cataloguing, analysis and optimization of integrated coastal areas, by case studies and best practices that could then spread-out and result in conservation policies and management;
- The possibility of becoming part of an international community, thus improving professional growth and policies aimed at environmental conservation and management.

The present Report is a long-term strategic document that will guide the natural resources uses and the activities development in a sustainable way. This document is complemented with the activities of the Steering Committee called "Tavolo CAMP" and the operational establishment of the Project Technical Coordination Office (PTCO), both designed with the aim to secure the correct management of the project and the post project application thought the involvement of the institutional, socio-economic and scientific-technical spheres during its elaboration.

A summary timetable and a summary budget table of the project are presented below (more details in sections 5.1 and 5.2).

CAMP Italy: Summary Timetable									
	2014			2015			2016		Follow-up
Signature of the Agreement	o								X.
Detailed formulation of the Project		o	o						XVII.
Implementation		o	o	o	o	o	o	o	XVIII.
Post Project activities								o	o

CAMP Italy: Summary Budget Table (in €)				
Activities	MELS	Regions	MAP	TOTAL
A. Horizontal Activities	€ 252.400	€ 147.600	€ 72.000	€ 472.000
B. Individual Activities	€ 906.800	€ 3.760.200		€ 4.667.000
<b>Total Estimated Budget</b>	<b>€ 1.159.200</b>	<b>€ 3.907.800</b>	<b>€ 72.000</b>	<b>€ 5.139.000</b>

## 1.2 Project Area

The project area includes several coastal strips and involves three Italian Regions (out of the original five): Emilia-Romagna, Sardinia and Tuscany. The Feasibility Study has taken into consideration technical-scientific information about all Italian coastal Regions to support the choice of suitable areas for the realization of the CAMP Italy Project. Existing spatial planning instruments were carefully considered for all the Italian Regions in order to select the most suitable areas, coastal types, habitat types and distribution, geographical features, administrative organization, degree of human settlement and economic activities. Subsequently, the analysis of a set of descriptors belonging to **three macro areas (natural features, natural and anthropogenic pressures and governance instruments)** allowed the development of synthetic indexes for a preliminary evaluation of the suitability of the Italian coastal Regions for the CAMP Italy Project. On the basis of the obtained results, following the indications from PAP/RAC and, additionally, taking into account geographical and physical characteristics as well as anthropogenic pressures and risks arising from the effects related to climate changes (natural pressure), the Regions, potentially achieving optimal results according to the aims of the CAMP Italy Project, have been selected.

Significant weight has been assigned to the following issues in the selection procedure:

- territorial planning instruments and/or experience on management of coastal areas to ensure the feasibility of the CAMP Project with existing resources;
- sites with significant naturalistic and environmental value to preserve their biodiversity (i.e. presence of protected natural areas);
- areas at risk from current and future effects of Climate Change, such as flooding by sea-level rise, coastal erosion, desertification;
- regional structures and/or processes for coastal management to increase the certainty of success of the project;
- territorial continuity with other selected regions to test procedures and structures for an effective coordination of areas shared by different Regions.

After this process five Italian areas as well as five Italian administrative Regions have been selected. They were distributed along the coastal zones of Liguria, Tuscany, Emilia-Romagna, Latium and Sardinia. After the Feasibility Study was finalised and approved, three out of five administrative Regions are still involved in the Project (Emilia-Romagna, Sardinia and Tuscany) and therefore two of the project areas are now smaller than expected in the Feasibility Study. These latter were highlighted by means of an asterisk in the following list of the five project areas (*see Figure 1*):



Figure 1. CAMP Italy Project Areas

- **Area 1 (Tuscany):** coastal zone between the northern border with Liguria and Livorno, including the Tuscan Archipelago except Giglio, Giannutri and other minor southern islands;
- **Area 2 (Emilia-Romagna):** coastal zone between the mouth of the Po di Goro and the mouth of Rubicon river;
- **Area 3 (Sardinia):** coastal area between Cape Galera and Cape li Canneddi, including Piana Island and Asinara Island;

- **Area 4 (Sardinia):** coastal zone between Torre Pittinuri and GrottaAzzurra (southern limit of Arbus town) and facing islands;
- **Area 5\* (Tuscany):** coastal area between Principina a Mare (Grosseto Province), as the northern limit of the Maremma Regional Natural Park, and the southern border with Latium, including Formiche di Grosseto, Giglio and Giannutri islands.

In the Feasibility Study Liguria was involved in Area 1 and Latium in Area 5, and both were collaborating with Tuscany. However, Tuscany confirmed its willingness to participate in CAMP Italy Project independently of those Regions.

**Area 1** stretches from the north-western **Tuscany** border to the mouth of the Calambrone river and lies entirely in only one physiographic unit that is 63.5 km long, but it also includes the northern part of the Tuscan Archipelago with its 5 major islands: Gorgona, Capraia, Elba, Pianosa and Montecristo. From the morphological point of view sandy beaches dominate this coastal zone, even if rocky coastlines characterize the Tuscan Archipelago. The northernmost sector of the Tuscan shore shows a high degree of urbanization which developed, at first, as a consequence of the intense port activity in Carrara and Viareggio and, subsequently, due to the expansion of touristic sites, such as Marina di Massa, Forte dei Marmi, Marina di Pietrasanta and Viareggio. The coastal zone between the Viareggio harbour and the Arno River mouth boasts a better-preserved natural environment, which lies within the Regional Natural Park of "Migliarino San Rossore-Massaciuccoli".

In Tuscany, the coastal population increased consistently, with high growth rates from 1951 to 1981, declining and stabilizing until the present day. With the exception of all the island communities, the coastal municipalities have higher density values than the provincial average. The maximum values are recorded in the town of Viareggio, which, with 1,985 inhabitants/km<sup>2</sup>, is second only to Florence. The lowest values are found in the Island of Capraia (18 inhabitants/km<sup>2</sup>). The average density is equal to 155 inhabitants/km<sup>2</sup>; in the Tuscany coast the average density is 265 inhabitants/km<sup>2</sup>, compared to 138/km<sup>2</sup> in inland Tuscany.

Among the **impacts/risks** that are more relevant in this area, the following deserve a special mention: **increased pollution of wastewater** caused by tourism, **damage** caused by moorings and anchorages at sea, **air pollution** and **pollution** from contaminated sites (**risk**).

**Area 2** is located in the north-eastern coastal zone of the **Emilia-Romagna** Region and corresponds to the terminal segment of a wide alluvial plain (Po Valley). The coast extends from the mouth of the "Po di Goro", to the North, to the mouth of Tavollo River in the South, with a total length of about 83 km. The geographical and geomorphological characteristics of the shore are complex and, locally, very diversified. Generally, fine-grained sandy sea bottoms, large beaches and coastal dunes characterize the coast of Emilia-Romagna. However, shapes and characteristics of the beach-dune system vary along the shoreline depending on local weather conditions, geomorphological and geological features, as well as human impact. Due to both natural and anthropogenic causes, the coastal area is strongly affected by subsidence, with an average rate of nearly 8 mm/year for an extension of up to 5 km from the shoreline. On the whole, the coastal arc can be divided into two main areas: (1) a northern one, which extends from the "Po di Goro" mouth to the "Saline di Cervia", characterised by many damp and brackish environments and (2) a southern one, which is typified by sandy beaches and, behind them, by relicts of former beaches.

Data about this area show a general increase in population since 1996. The growth, although widespread, had a different intensity in the provinces. In the "Riviera" area – which is affected by CAMP – residents increased by 9.5%, to 477,308 units (compared with 436,055 a decade earlier), surpassing any other regional area. In this area there are many municipalities that have registered an increase of immigration, higher than the regional average.

Relevant impacts/risks in this area are coastal erosion, eutrophication, pollution, saltwater intrusion and subsidence.

**Area 3**, in northern Sardinia, extends along the coast between "Capo Galera" (Alghero), up to the promontory of Capuneddi, including the Asinara island, with a linear development of 362 km of coastline.

More than 200,000 residents, approximately 13% of the regional population, characterize this area. The residents are concentrated (about 60%) in the municipality of Sassari. Population density has significantly higher values than the regional average and the coastal municipalities of the island: the four main city-centres (towns) are positioned in the top ten most populous coastal municipalities of the Region. The 2001 census recorded a total number of homes next to 110,000 units, approximately 14% of the regional total and a quarter of the housing stock of the coastal municipalities.

As for **impacts/risks**, **desertification** (Asinara), **coastal erosion** and **pollution** from the industrial area of Porto Torres are the most relevant.

**Area 4**, in western **Sardinia**, extends from the southern end of the wide "Buggerru-Portixeddu" bay, including the granite promontory of "Capo Pecora", the complex Scivu-Piscinas dune system and the Oristano Gulf, and ends on the Montiferru rocky coasts ("Santa Caterina di Pittinurri"), with a total linear development of about 292 km. It is worth noting that the industrial harbour of Oristano, located in the middle of the Gulf, is the main node of the maritime traffic of this area.

This area has a resident population of more than 90,000 units, i.e. approximately 6% of the total of Region. The municipalities of Oristano, Terralba, Guspini account for 60% of the population, with a decisive extent on the socio-economic profile of the area. In this area there are over 46,000 homes, approximately 6% of the regional housing stock and 10% of the units located in the coastal municipalities of the Sardinia Island.

Finally, two main **risks** are to be mentioned for this area, namely, **coastal erosion** and **floods**.

**Area 5** extends from "Principina a Mare" (Grosseto, **Tuscany**) to the northern border of Latium and is about 100 km long. From the morphological point of view, shallow beaches with sandy bottoms characterize the coast. The promontory of Argentario, with the Giannella and Feniglia'stombolos, interrupt the coastal flat morphology in the central sector whereas sandy beaches, with low slope, appear South of the promontory and characterize the remaining coastal area. This area stretches entirely within the province of Grosseto and can be divided into two main sectors: the northern one, including the municipalities of Grosseto and Magliano; and the southern one, also known as "Costa d'Argento", which lies in the southernmost part of the Grosseto province and comprises the municipalities of Monte Argentario, Orbetello and

Capalbio ("Maremma Grossetana"). The most important physiographic units which influence the sedimentology of the area are represented by the "Monte Argentario" and the Ombrone river. Between the promontory and the Ombrone delta, more than 10 km from the coastline, a lens-shaped deposit of probable fluvial origin (Ombrone) occurs and reaches the maximum thickness of nearly 26 m. From the geomorphological point of view, sandy beaches characterize the coastline with low coastal slopes in the Grosseto province, the Giannella, Feniglia'stomboles and the Capalbio shore. These characteristics are also typical of the area comprised between the Talamone Gulf and Argentario. The main sandy beaches are fed by sediment load of the major rivers of the area (Ombrone and Albegna).

As in northern Tuscany, the coastal population steadily from the '50ies to the '80ies, slightly declining in the last 20 years. Even in southern Tuscany coastal municipalities on the mainland have higher density values than the provincial average. While the average density is 155 inhabitants/km<sup>2</sup> (and 138/km<sup>2</sup> in inland Tuscany), along the coastline the average density is 265 inhabitants/km<sup>2</sup>. This area shows a highly urbanized territory with a high intensity of seasonal residences in summer, producing a multiplier effect of pressure on natural resources and on the coastal ecosystem.

**Coastal erosion, eutrophication of coastal lagoons, pollution** from contaminated sites (risk) as well as from industrial sites and ports are the most relevant **impacts/risks** in this area.

### **1.3 MAIN PROBLEMS IN THE CAMP AREA**

The Feasibility Study (FS) revealed a complex scenario that hinders the integrated management of coastal areas, mainly because of the fragmentation existing among the different levels of government. However, all those levels should be involved in ICZM policies, trying to (vertically) highlight the relationships between them and some of the main sectorial policies (horizontally) affecting coastal areas, at the same administrative level.

In particular, the main problems in the CAMP Area, as identified in the FS, are related, with regard to the central level, to the absence of a centralized responsible authority for the management of coastal areas. In fact, while acknowledging the Ministry for the Environment, Land and Sea a focal role in the field of integrated management of coastal areas, Italy, to date, has not a coastal Act and a dedicated coastal governance body or management Agency. Implementation is carried out within a range of regulatory frameworks dealing with coastal management at government and regional levels related to administrative decentralization pertaining sectors such as environment, agriculture, fisheries, industry, infrastructure and transport, tourism, health, economic development. Furthermore, this approach often appears sectorial. The participatory workshops that will be carried out by CAMP Italy Project should aid to bridge the gap of institutional fragmentation, promoting, in the meantime, the social and stakeholder participation in coastal area related to decision-making.

As already underlined, the CAMP Italy Project aims at favouring integrated coastal zone management in Italy, not only by selecting areas that may summarize the whole national situation, but also by promoting, in some of these areas, an agreed governance among the local, regional and central administrations. Hence the choice of Emilia-Romagna, Sardinia and Tuscany Regions, which encompass very different natural and socio-economic situations, and share common problems related to the management of coastal strips where the administrative boundary does not correspond to the border morphology.

Management actions are often carried out at the local level, involving effects due to operations which affect the coastal ecosystem (e.g. by altering hydrodynamics) that adversely affect coastal areas of neighbouring regions. Therefore, two or more administrative units, differently organized, but with similar socio-economic problems, may work together to find effective solutions to problems. An example of diverse problems could be, for instance, conurbation management or sediment extraction.

The development of the CAMP Italy Project will undoubtedly promote the relationships among the coastal regions involved in it, improving the existing networks, and strengthening communication and arrangements for the exchange of experiences on unusual issues. In particular, the regional administrations, with a different internal organization related to the integrated coastal zone management, will have the opportunity to meet and exchange views on different approaches. Other regions, although not directly involved in CAMP Italy, will take profit of the outcomes of the Project through the planned CAMP information and dissemination activities.

While Tuscany is more close to the overall situation of most other Italian Regions, Emilia-Romagna and Sardinia are worth mentioning for their distinct characteristics.

Emilia-Romagna is characterized by the massive presence of tourist resorts and interested in an appropriate way to govern a sustainable development of this activity. It is an area where the government of the coastline has long been well established and has developed all the tools (cognitive, monitoring, planning and legislative) necessary for a sustainable management. The area selected by the CAMP Italy project in Emilia-Romagna encompasses environmental values and human activities of significant socio-economic importance. In fact, the proposed area is already inserted into the Po Delta Regional Park where a set of people and trades base their jobs on the sea and the coast wealth. The Region has developed several projects on Integrated Coastal Zone Management: in particular a project for the definition of the ICZM guidelines and a program of experimental actions sponsored by the Po Delta Park in 2005. Participation in the CAMP Italy project will allow the Emilia-Romagna Region to enhance institutional capacity and strengthen the governance system, continuing the path started in 2005 with the establishment of the ICZM strategy.

Sardinia, on the other hand, can be considered as a complete and isolated coastal system, which offers the opportunity for spatial planning and sustainable development of coastal areas not yet affected by the presence of important human activities. The Region of Sardinia has also developed tools for understanding and monitoring (the "Regional Coastal Conservatory of Sardinia"- RCCS) to respond appropriately to instances from different sectors and local governments. The RCCS has specific functions related to the coordination of initiatives for integrated management of coastal zones carried out by Regional Administration, Local Authorities and the Administrations of Protected Areas and Natura 2000 sites and, in addition, to the promotion and dissemination of issues related to environmental protection, landscape and sustainable development in coastal areas.

The ability to analyse issues and to program the management along with possible solutions, offers a great opportunity for growth in regional institutions, thanks to the fact that, in CAMP Italy, different regional choices can be examined and compared and, through an



effective coordination, management plans providing the best solutions can be reached. At the same time, through the actions taken by each individual Region, it will be possible to obtain and evaluate the results which will enable other Regions to adopt and / or modify the Project's solutions, according to their own needs.

## **1.4 AGREEMENT AND REFERENCE CONDITIONS FOR THE PROJECT**

The Agreement for the CAMP Italy project was signed on 27 March 2014 on the basis of the preparatory activities that took place prior to the signature between the Ministry of Environment, Land and Sea (MELS) and UNEP-MAP. It offers a general framework for implementing the Project goals, targets and strategy as well as the structure of the Project, with outputs, institutional actions and structure, funds, and a general working plan and the schedule. The Agreement and the related Terms of Reference also define the basic elements of the Horizontal activities, the Individual Activities, the achievement indicators and the post-project activities to be implemented.

Concerning the cross-sectorial activities, they are guaranteed by means of the Agreement signed on 19 September 2014 between ISPRA (Institute for Environment Protection and Research) and CoNISMa (National Inter-University Consortium for Marine Sciences). In particular, CoNISMa guarantees functional and organizational support to CAMP Italy Project, e.g. in supporting the organization of the Inception Conference (Alghero, Italy, 12 November 2014), the production of the Project logo, information and communication activities with the production of posters and programmes, the realization of the Project website in collaboration with INFO/RAC, and the realization of a video (Society TerraTrema Film) to be broadcasted on a dedicated YouTube channel.

### **1.4.1 Green project**

The Tavolo CAMP meeting of 7 July 2014 has agreed on the principle to apply the model of Green Project Management, with the idea of thinking green throughout the Project activities and to make decisions taking into account the impact on the environment – if any. It is a way to ingrain “greenthink” into every project’s activity management process, through the development of eco friendly techniques and the promotion of ecological friendly systems, e.g. combating increasing traffic emission and excessive paper consumption (paperless system).

## **2 INCEPTION REPORT: GENERAL GOALS AND ACTIVITIES RELATED WITH ITS PREPARATION**

### **2.1 GOALS OF THE INCEPTION REPORT**

The Inception Report is the first basic integrated document of the Project. Its aim is to ensure its integration and provide detailed instructions for its implementation, both at Project level and for each Individual Activity.

The goals of the Inception Report are the preparation and development of:

- project objectives;
- pre-requirements of Technical Specifications (TS) and operational details for the specific Individual Activities;
- project structure;
- project activities;
- the institutional role and its organisation;
- the participative framework for individuals and socio-economic stakeholders;
- monitoring procedures and achievement indicators;
- methodologies, tools and techniques to be applied;
- the links between Individual Activities and other projects or initiatives and the law;
- the working plan and schedule for each activity to be implemented;
- assumptions and risks within the logical framework of analysis.

The final objective of the Inception Report is to harmonise, interrelate and integrate the actions implemented in the framework of the Horizontal Activities and the singular projects at Project level.

## 2.2 ACTIVITIES CARRIED OUT FOR THE PREPARATION OF THE FINAL DRAFT OF THE INCEPTION REPORT

The **activities** for drawing up the final draft of the Inception Report that will subsequently be approved by the PTCO and the Tavolo CAMP, during the Inception Conference, are as follows:

- **Establishing the Institutional Framework:**
  - In May 2014 Mrs Daniela Addis has been appointed National Project Coordinator (NPC).
  - Monitoring the MAP: Mr Marko Prem has been appointed MAP Coordinator.

The two Coordinators subsequently invited experts from the different RACs to collaborate with the National Project Coordinator (NPC) and the PTCO in the different activities related to the Project.

- **Establishment of the Steering Committee or 'Tavolo CAMP'**, made up of the MELS and the Region of Emilia-Romagna, Sardinia and Tuscany, was set up in 2008 to assist in the formulation and implementation of the Project. The first meeting of the Tavolo CAMP, after the nomination of the NPC for the CAMP Italy, was held on 7 July 2014.
- **Definition of the Participative Programme:** in accordance with the Agreement and the Feasibility Study, a proposal is drawn up for defining the social participation framework of the Project to be adopted at the Inception Conference following approval by the Tavolo CAMP.

Hereafter it is presented the **Participative Programme** and the Regional policy framework related to the principle of horizontal “participation” and the up-to-date application scheme.

The General Participation Framework of the Project, with a legal basis at national and regional level, requires that all Partners participate in project activities through their representatives, share strategies and policies, with a specific involvement at different institutional levels and including stakeholders. Criteria for consultation and participation processes will be improved and implemented during the Project activities to ensure broad participation and better communication, promote transparency and access to information, shared formulation of policies, and equal access to public debate.

Telematics and web devices, specifically dedicated to online processes of participation, will play a particular role.

## **Sardinia**

The Region of Sardinia deals with the theme of ICZM through sharing strategy and the involvement at various institutional levels and of several stakeholders, both during the planning and implementation of the Plans and/or regional Programs specifically designed. In particular, the Regional Departments and Local Authorities, as far as their competence, carry out the following activities:

- The **Department of the local authorities, finance and planning**, is a point of reference for the municipalities and local authorities for the preparation of the Urban City Planning and Plans for the Use of Coastal areas, which must be drawn up in accordance with the Regional Landscape Plan;
- The **Department of Environmental Defense, Nature Protection Service**, is the institutional reference point for the management of SIC and ZPS areas. The development of management plans has been delegated to local authorities (municipalities, associations of municipalities, provinces) through a specific funding line;
- In order to define an intervention program aimed at prevention, protection and integrated management of the coastal zone, the “**Coastal Technical Table**” (TTC) has been established, that is a collegial body composed of the Services of the Department of Environmental Defense, the Agency “Conservatoria delle Coste”, the River Basin District Agency, the General Directions of the Department to the local authorities, finance and planning and of the Department of Public Works;
- In an early stage of establishing an action program for the identification of priority actions for coastal defense, the methodological feasibility study of the Project CAMP Sardinia has been used as a reference;
- The “**Conservatoria delle Coste**” Agency with the institutional aims of the safeguard and stewardship of coastal ecosystems and integrated coastal management duties of areas with scenic and environmental importance, owned by regional or placed at its disposal by public or private entities. The Agency is therefore a technical body of the Region Sardinia, which in accordance with its institutional mandate, develops actions on integrated management of coastal areas.

More specifically, for every Individual Action of its competence, the Agency will take the arrangements for the involvement of institutions and stakeholders (see below, for each Individual Activity).

## Tuscany

The Region of Tuscany has already adopted specific law on participation, as an innovative instrument for encouraging and promoting new forms and new methods of participation, by means of the construction of new participatory institutes, shared pathways and rules for discussing large and small community issues, and the evaluation of possible solutions by means of dialogue and comparison, within an established time-scale, in the preliminary phase prior to the actual decision. In particular **Regional Law 69/2007** on the Rules for the promotion of participation in the formulation of regional and local policies<sup>1</sup> and **Regional Law 46/2013** on the Public debate and the promotion of participation in the formulation of regional and local policies<sup>2</sup>, both of which promote the creation of places and spaces for rational comparison between different issues, between citizens who are willing to question their own initial point of view and where a mostly commonly shared solution can be sought.

These laws on participation are based on three mainstays:

(i) the **institution of the Regional Public Debate**, to carry out public debate regarding large public works or issues having a significant environmental or social impact on the whole community of the Region. The debate has a duration of six months, it is organized by and conducted under the responsibility of a "third party", independent and neutral organ instituted by the law: the **Regional Authority for guaranteeing and promoting participation**.

As a whole, the **Public Debating Model (PDM)** is a model inspired by the search for maximum transparency during the phase of identifying the justification for the project, and the possible solutions and alternatives. The Regional Public Debate should take the form of a great opportunity for openness and collective, articulated involvement by means of various phases for comparing hypotheses and the availability of a variety of instruments for participating: the publication of a basis of full and shared technical data, the questioning of experts and scientists, forums, or other platforms that can be "regulated", that permit discussion between citizens and which can monitor the formation (building) and change in their opinions and preferences and the use of Internet and new IT, etc.;

(ii) **actions to support local participation processes**, whether they be promoted by local authorities, citizens or other categories. The law provides for the presentation of participation projects by local authorities, as well as citizen groups, associations, schools

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<sup>1</sup> Legge 69/2007, *Norme sulla promozione della partecipazione alla elaborazione delle politiche regionali e locali*. Bollettino Ufficiale n. 1, 03.01.2008.

<sup>2</sup> Legge 46/2013, *Dibattito pubblico regionale e promozione della partecipazione alla elaborazione delle politiche regionali e locali*. Bollettino Ufficiale n. 39, 07.08.2013.

and businesses, regarding a well defined and circumscribed matter and which can have a maximum duration of six months. The most suitable instruments and methods must be indicated in order to guarantee maximum "inclusion" and so that all points of view and interests are involved and there is equal opportunity to express opinion. The Regional Authority will be in charge of assessing and authorizing project applications on the basis of a series of conditions and requirements indicated in the law. The competent body will declare at the start of the process that it will undertake "to take into account" the results of the participation process and that it will nevertheless give an adequate and publicly accessible explanation of the reasons for which the results will not be accepted or only partially accepted. Regional support of a project can be of a financial, methodological (assistance, consultancy etc) or logistical (e.g. IT tools) nature;

(iii) the **reinforcement and extension of the numerous "participation" opportunities** already provided for by regional policies and in the planning procedures of the Region of Tuscany by means of a series of amendments to regional legislation in force.

A new method of participation, parallel to the regional legislative design, consists in the "town meeting", as a tool of direct participation in local government by citizens. The evidence and results emerging from the town meetings (e-town meetings as well) are incorporated and further implemented in the regional planning documents. The modern version of the town meeting (the electronic town meeting) allows, on the one hand, to promptly notifying the results of the group work to the plenary assembly, and, secondly, it introduces the possibility to know the opinions of the individual through the televoting.

The electronic town meeting is composed of four phases of work:

- *Information and depth*, which allows participants to gain confidence with respect to the arguments;
- The *discussion* for small groups (10 people), which facilitates mutual listening and comparing with differing opinions of their own;
- The *reflection on the outcomes of group work*, once synthesized and returned the whole assembly;
- The *vote*, which allows participants to express their preferences.

The evidence and results emerging from the town meetings (e-town meetings as well) are incorporated and further implemented in the regional planning documents.

Regarding the **Structural Funds** actual programming period (2014-2020), for the design of the regional "Smart Specialization Strategy", participation has been a crucial element: the results of participatory thematic labs resulted to be the starting point for the planning of new Regional Operative Programme 2014-2020.

In view of the new programming period 2014-2020, from May 2012, the Tuscany Region has organized a structured participatory process with the institutional, economic and social partnership, the main innovation stakeholders in Tuscany and, in general, all interested in. Participation process has been a crucial element, the results of which is the starting point for the new Regional Operative Programme 2014-2020.

For every Individual Action of its competence, the Region of Tuscany will take the arrangements to apply the above-mentioned regional tools for the involvement of institutions and stakeholders.

### **Emilia-Romagna**

The rules on the definition, reorganization and promotion of procedures for consultation and participation in the formulation of regional and local policies of the Emilia-Romagna Region are specified in the **Regional Law 3/2010, 9.02.2010**.

To carry out the functions not only of consultation and participation, but also of information and communication, the Water Protection and Restoration Unit is equipped with specific internal skills that, depending on the activities, interface with the Agency of Information and Communication of the Regional Council (special structure located within Cabinet of the Presidency) and the Communication, Education for Sustainability and Tools for Participation Unit.

Moreover, to support the required activities, telematics and web devices are also available such as institutional portals (<http://www.regione.emilia-romagna.it/>) and thematic sites (<http://ambiente.regione.emilia-romagna.it/>, <http://ambiente.regione.emilia-romagna.it/acque>), and Facebook (<https://www.facebook.com/RegioneEmiliaRomagna>) and Twitter tools (<https://mobile.twitter.com/regioneer>).

Furthermore, the innovative e-participation platform ioPartecipo+ (<http://partecipazione.regione.emilia-romagna.it/iopartecipo>) is specifically dedicated to the online processes of participation realized by the Region in their policies.

For every Individual Action of its competence, the Region of Emilia-Romagna will take the arrangements to apply the above-mentioned regional tools for the involvement of institutions and stakeholders.

### **Common activities**

- **Initial gathering of data:** Regions have organized a preliminary gathering of data and information (applicable law, plans and programmes that influence the CAMP area).
- **“Tavolo CAMP” meeting** in July 2014, to organize the activities and to take the appropriate agreements.
- **Organisation of several telematic meetings** between the CAMP Project Partners (the participating Regions, MELS, PAP/RAC and the participating MAP Components) and the National CAMP Project Coordinator (June-November 2014).
- A specific meeting with PAP/RAC, other MAP Components and Coordinators of CAMPs to discuss the **Mediterranean CAMP Project Network**, the cooperation with other Projects and the organisation of the CAMP Italy Inception Conference (Tunis, 25 September 2014).

**Review of the preliminary documentation, drafting of the Inception Report and preparation of the proposals for pre-requirements technical specifications and operational details:**

- A review has been carried out of the preliminary documentation (Feasibility Study and the initial version of the Inception Report), with the aim of assessing whether it is up to date, given that there have been changes to the problems identified in the Feasibility Study for the CAMP area and the need to take these changes into consideration in the final draft of the Initial Report.

In collaboration with the PTCO and the National Coordinator of the CAMP, the draft of the Inception Report has been prepared for submission to consultation by the Tavolo CAMP. The draft has been submitted to a process of participation before the Inception Conference.

- The draft for review by the Tavolo CAMP includes the preliminary version of the pre-requirements of technical specifications and operational details for Activities in the project, to define goals, actions, expected outputs, schedule, budget and the logical framework. These specifications are approved by the Tavolo CAMP and then enriched through contributions during the Inception Conference.

- **Decision on the National Experts:**

- After the adoption of the Inception Report, the list of potential expertise is defined; the expertise involved in each Individual Activity and at project level will be decided.

- **Prerequisites for implementation:**

- The Tavolo CAMP has set out compliance details for the financial preconditions and the budget required for each activity in the project.

- **Encouraging stakeholders and the participative process before the Inception Conference:**

As preparation for the Inception Conference and to enrich the Inception Report, a previous process has been carried out in order to encourage the stakeholders through the following actions.

- Presentation of the CAMP Project to the members of the Regional Technical Office and, through them, to some communities involved in the CAMP Project areas.
- The draft Inception Report was sent to the members of the Tavolo CAMP on 4 June, 4 July, August, September and October for them to make any contributions they deem appropriate.

- **Harmonisation and integration** of the contributions by the PTCO and the Tavolo CAMP to the draft Inception Report.
- **Inception Conference**, held at the Headquarters of Porto Conte regional Park, Alghero (Sardinia) on 12 November 2014, in which the Inception Report has been approved.

The following representatives have been consulted in the process of preparing the draft Inception Report for the Steering Committee:

- Consultation and exchange of information with representatives from the MELS: the Head of Unit Protection of Marine and Coastal Environment, General Directorate for Nature and Sea Protection - Ministry of the Environment, Land and Sea.
- Consultations and Exchange of Information with representatives from the Regions.
- Consultation and exchange of information with the Coordinator of the MAP, the Directors of INFO/RAC, SCP/RAC and MED POL, and the experts of BP and SPA/RAC.

Once the draft has been approved for review by the Tavolo CAMP, the following consultations will be made:

- Consultations and exchange of information with representatives from the municipalities of the Regions.
- Consultations and exchange of information with social-economic stakeholders.

### **The participation of other CAMP Projects on the IC**

In order to give the CAMP Italy and the IC event a Mediterranean dimension, also in the prospect to create a Mediterranean CAMP network – as agreed during the **Tunis meeting on 25 September 2014** - four recent CAMP Projects have been selected: Spain, Montenegro, Slovenia and Morocco. The National Coordinators will be contacted via Skype during the IC.

The purpose is to welcome by the others National Coordinators the new CAMP Project of Italy to the network with an encouraging message and suggesting main points for the success of the Project. The goal of the network is to build a tool in order to share ideas, experiences, good practices to spread virtuous environmental policies, respectful of the territories and peoples.



# 3 GOALS, STRATEGY, PHASES AND COORDINATION OF THE PROJECT

## 3.1 GOALS AND PROJECT OBJECTIVES

The main **goals** put forward for the CAMP Italy, as approved in Almeria in January 2008 and presented in the Feasibility Study in 2012, were formulated on the basis of the diagnosis and within the framework of objectives and criteria for the CAMP projects. They include a strategic objective (comprised of three sub-objectives) and seven complementary objectives.

As for the **strategic objective**, it consists in testing the integrated management of the coastal area, implementing both the ICZM Protocol and the EU ICZM Recommendation 2002. Moreover, it includes actions aimed at (1) reducing critical processes (coastal erosion, loss of biodiversity, pollution), (2) managing natural resources in a sustainable way and (3) conserving natural habitats and biodiversity.

The seven **complementary objectives** will be achieved through activities specifically targeted at particular problems:

- a) management of the marine spaces (such as management of the mining of sand from the seabed, of fish farms, etc.);
- b) protection and enhancement of the historical-cultural and environmental heritage, and landscape;
- c) diversification of the touristic offer (new offers focused on specific environmental and landscape aspects);
- d) environmental and landscaping restoration;
- e) recovery and preservation of the coastal and marine environment at the river mouths;
- f) description and representation of the territory and its resources, identifying values, opportunities and critical issues, reasons for the proposed choices and evaluating expected effects;
- g) definition of evolutionary scenarios which intervention policies must address.

Of course, CAMP Italy will also aim at the general objectives of the CAMP Programmes, i.e.:

- developing strategies and procedures at national and local level for sustainable development, environmental protection, rational use of coastal and marine resources as input for the formulation of Mediterranean strategies for sustainable development;
- identifying, adapting and testing, in a real operational context, methodologies, tools and practices of sustainable coastal development;
- contributing to upgrade the human resources working at national and local institutions;
- ensuring a wide use, at national and regional level, of experience gained by the program and its individual projects, and create the conditions for the follow-up.

In addition, the implementation of CAMP Italy will be based on the relevant EU legislation, such as the new Maritime Spatial planning Directive, the Marine Strategy Framework Directive

2008/56/CE, the Water Framework Directive 2000/60/CE, the Habitat Directive 92/43/CEE and the Birds Directive 2009/147/CE.

### 3.2 STRATEGY

The Project strategy is based on Integrated Coastal Zone Management (ICZM) and on sustainable development principles, as well as on relevant International, European Union and Domestic law and related plans and programs, in particular according to the principles and objectives set by the 2008 ICZM Protocol of the Barcelona Convention.

The CAMP Italy Project will be implemented by national officers and/or experts assisted by MAP experts and possibly by international consultants. The integration of the Project results will be made jointly by MAP and selected national officers and/or experts.

MAP Regional Activity Centres and MAP programmes with particular expertise will provide technical assistance to the Project, including:

- Secretariat of the Barcelona Convention;
- Priority Actions Programme Regional Activity Centre (PAP/RAC);
- Information and Communication Regional Activity Centre (INFO/RAC);
- Specially Protected Areas Regional Activity Centre (SPA/RAC);
- Blue Plan Regional Activity Centre (BP/RAC);
- Sustainable Consumption and Production Regional Activity Centre (SCP/RAC);
- MEDPOL.

In addition, national teams implementing individual Project activities will use, as appropriate, recommendations and documentation prepared within hitherto MCS D and EU activities. Administrative and technical support related to the use of MCS D and EU documents will be provided by the responsible MAP component and the Italian MELS.

The cost of the Project will be covered through cash and “in kind” contribution by MAP (through the contributions of the RACs involved), and by the host country cash and “in kind” contributions.

The allocation of MAP funds related to:

- salary of National Project Coordinator, and
- expenses of MAP experts and consultants after the approval of the Inception Report and Pre-requirements of Technical Specifications and operational details.

Progress reporting by national teams to the National Project Coordinator and PAP/RAC in its role of MAP Project co-ordination will be provided through regular half-yearly progress reports. In addition, at the Project level, the National Project Coordinator and PAP/RAC will present regular half-yearly progress reports to MAP and Italian MELS.

The post-project activities (formulation and Implementation of monitoring activities; checking and presentation of reports) will be implemented by the national authorities responsible and thus will be make the MAP known through the PAP/RAC.

### 3.3 PHASES OF THE PROJECT

Project phasing follow the approach incorporated in the ICZM project planning process, consistently with the manual on the preparation and implementation of the CAMP programme (UNEP/MAP, 1999) (Figure 2):

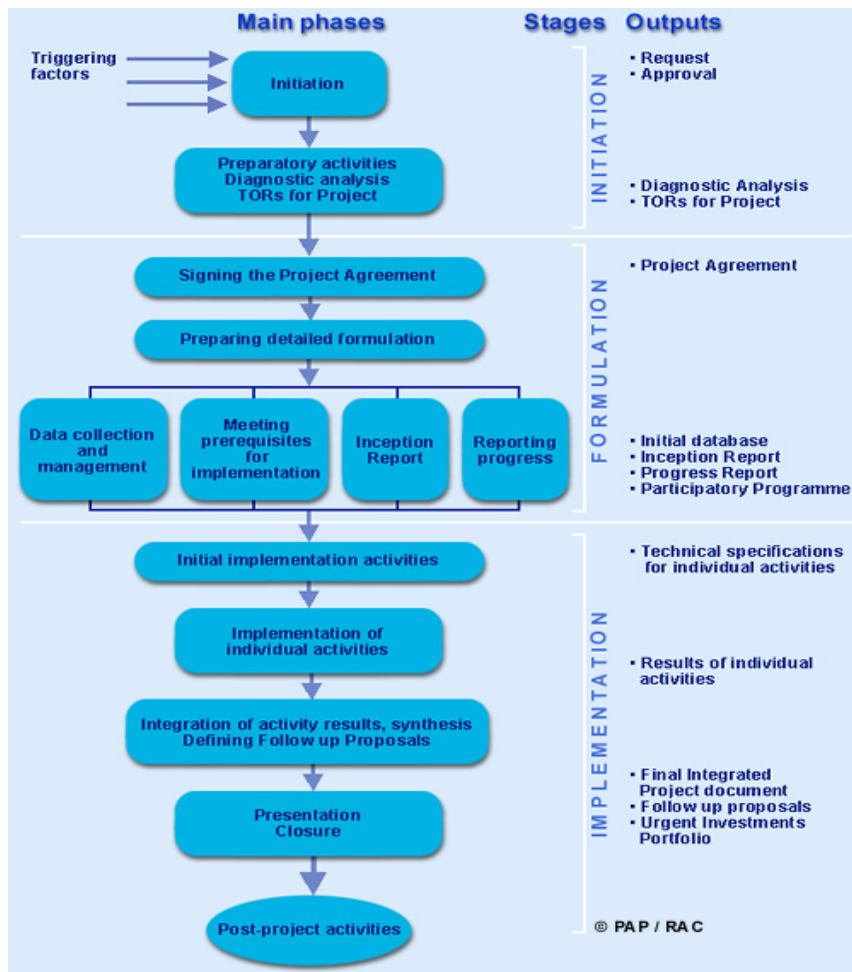


Figure 2. Phasing of the Project.

- **Stage I: Initiation** (implemented before the signing of the Agreement)
- **Stage II: Detailed formulation of the Project**
  - initial data collection;
  - meeting prerequisites for implementation;
  - draft pre-requirements of Technical Specifications and operational details;
  - draft Inception Report;
  - Inception Conference / Final Inception Report.

- **Stage III: Implementation**

- initial implementation activities, including preparation of the final version of the Technical Specifications for individual activities;
- implementation of individual activities;
- integration of results, including the preparation of the Final Project Report;
- presentation of the results.

- **Stage IV: Post Project Activities**

- formulation and implementation of follow-up activities;
- monitoring and reporting;
- presentation and use of results at MAP level.

## 4 STRUCTURE OF THE PROJECT

As a result of the preparation of the Feasibility Study, the CAMP Italy project is structured around two main segments:

- A. **Horizontal Activities**, based on data, problems, discussions, documents issued by the Individual Activities, will be aimed at four goals: I. coordination and dissemination of the results; II. capacity building; III. data collection and management and IV. institutional coordination and public participation.
- B. **Individual Activities** structured around the main thematic areas identified in the FS, i.e. a) Planning of marine and terrestrial coastal areas, b) Protection, preservation and restoration of coastal and marine habitats, and c) Sustainability of socio-economic stress on the coastal zone (in particular tourism, fishery, structures for coastal defence).

The preparation of the CAMP Italy Project will be carried out under the following organizational structure:

- The institutional responsible of the Project is the MELS which guarantee its representation to PAP/RAC.
- The constant national coordination among all the institutional actors is guaranteed by the Coordinator and the Steering Committee called "Tavolo CAMP".
- Each Region, within the National coordination, is responsible for the correct implementation of project activities and monitoring of their part and, in particular, of their Individual (or Specific) Actions; moreover, periodically updates the Tavolo CAMP.
- For the best operational coordination of the Project, for each Horizontal Activity a responsible is named by the Tavolo CAMP to ensure that the action is completed in cooperation and coordination with the National Project Coordinator.

### **3.6.1 Tavolo CAMP**

The Tavolo CAMP carries out general superintendence and coordination acting as a project Steering Committee. It is composed of representatives of the Regions and the Italian MELS. The National Project Coordinator participates as permanent observer to the Tavolo CAMP meetings.

The 'Tavolo CAMP' identifies the CAMP Italy structure for the coordination, integration and dissemination of results and, in particular:

- Individuates for each horizontal activity a subject responsible who liaises with the National Project Coordinator;
- Monitors the individual/pilot project activities;
- Assesses the specific activities taken in the CAMP areas;
- Identifies deficiencies and proposes and drafts corrective or supplementary actions;
- Decides if and how actions should be modified and/or integrated;
- Analyses comparatively the state of play of the specific activities;
- Finalizes Integrated Report including lessons learned and proposals for national level implementation of ICZM;
- Reconsider, as need may arise, the co-financing quota for each Part of the Project.

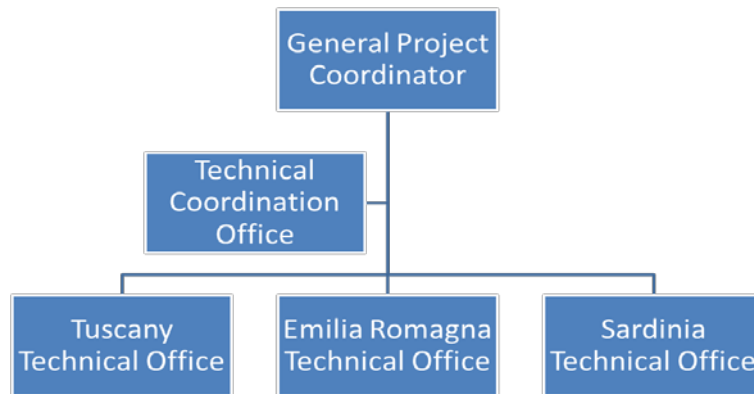
### **3.6.2 The National Project Coordinator (NPC)**

The NPC, nominated by the PAP/RAC in accordance with the MELS, as the responsible of the coordination and management of the Project:

- Coordinates and integrates the whole project activities and deliverables;
- Manages pilot actions shared by CAMP Regions (horizontal management);
- Manages the coordination between the National administrations (National, Regional and Local) and between these and MAP, as well as the coordination of all external contributions;
- Keeps in contact with other projects (in particular, CAMP, ICZM, Adriplan, Ritmare, etc.), also with the view of cooperation with CAMP Italy Project;
- Submits proposal, integration, preparation and presentation of progress reports and Project results to the Tavolo CAMP;
- Reports to the Tavolo CAMP on its activities and the progress achieved;
- Prepares the Final Integrated Report.

### **3.6.3 Project Technical Coordination Office (PTCO)**

NPC, the nominated subjects responsible for each Horizontal Actions and the responsables for Individual Actions form the Project Technical Coordination Office (PTCO), which acts in accordance with the respective Technical Specification for the activity, and in accordance with the respective TORs for the consultant.



**Figure 3. Organization structure of CAMP project**

## 5 PROJECT ACTIVITIES

CAMP Italy includes two different types of activities: the Horizontal Activities and the Individual Activities. In the following sections their main features are briefly presented as well as their expected results and deliverables.

### 5.1. Horizontal Activities

The Horizontal Activities of the Project are those actions, expressly provided for by UNEP/MAP, which characterize a CAMP project. They can be regarded as mandatory and therefore they have to be included in any CAMP Project.

In the following paragraphs, possible proposed actions, responding to the functions for which the CAMP Project has been realized, are outlined and described.

#### 5.1.1 Coordination and dissemination of the results

This horizontal activity deals with:

- the coordination of the CAMP Italy Project;
- the presentation of the main components of the Project;
- the presentation and dissemination of the results.

This task comprises the operational management of the project, ensuring the timely and full implementation of all actions and related activities as well as the co-operation between the project partners. To this end, the “CAMP Italy Project” Memorandum of Understanding with the Regions will be upgraded accordingly, outlining the decision making structures and communication channels.

In particular, **Activity 1** includes the following activities:

- (i) The **coordination of the CAMP Italy Project**, coping with its complexity, due to its structure as a multi-area CAMP project involving three Italian regions. This stage is managed by the following actors and related tasks:

The **Tavolo CAMP**, which will have the following responsibilities and tasks:

- Agrees initial activities, including general co-ordination and logistics, initial phase of “functional” activities;
- Develops a monitoring, evaluation and reporting action in the framework of the implementation of the project and performs an activity of internal audit according to the methodological guidance provided for in the UNEP operating manual within the MAP PAP/RAC;
- Requests the NPC and the PTCO to prepare draft documents and specific proposal based on its decisions;
- Overlooks all the remaining horizontal activities;
- Adopts integration of results, including the Final Integrated Project Report, based on NPC and PTCO proposals and draft documents;
- Decides the follow-up proposals and the Urgent Investment Portfolio;
- Works on the determination of post project activities (monitoring, evaluation, reporting, follow-up activities).

The **PTCO**, which will have the following responsibilities and tasks:

- Supports the National Project Coordinator;
- Takes care of the horizontal reporting activities;
- Supports Individual activities implementation;
- Manages activities such as communication (e.g. brochures, seminars, marketing, etc.), participation, training and rising awareness; creation and update of the project webpage;
- Manages the dissemination of the activities, e.g. through the INFO/RAC;
- Takes care of the contacts with stakeholders at the national level;
- Manages the activation of a web forum on the project issues;
- Monitors the individual/pilot project activities;
- Assesses the specific actions taken in the CAMP areas;
- Identifies deficiencies and proposes and drafts corrective or supplementary actions;
- Analyses comparatively the state of play of the individual activities.

The **NPC**, which will have the following responsibilities and tasks:

- Coordinates and integrates the whole project activities and deliverables;
- Manages pilot actions shared by CAMP Regions (horizontal management);
- Is responsible of the coordination between the National administrations (National, Regional and Local) and between these and MAP, as well as the coordination of all external contributions;
- Keeps in contact with other projects (in particular, CAMP, ICZM, Adriaplan, Ritmare, etc.), also with the view of cooperation with CAMP Italy Project;
- Keeps in contact with UNEP/MAP RACs;

- Submits integration, preparation and presentation of progress reports and Project results to the Tavolo CAMP;
- Reports to the Tavolo CAMP on its activities and the progress achieved;
- Prepares the Final Integrated Report.

A **provisional list of partners** in the implementation of the Project activities will be established, including other Regional Departments, municipalities, scientific bodies and Universities, professional organisations, economic interests, trade unions, local NGOs, and other concerned organisations.

- (ii) the presentation of the main components of CAMP projects in general and, in particular, of the CAMP Italy Project, as a good example of a pilot application and implementation of the ICZM Protocol of the Barcelona Convention, as well as of the new European Union Directive establishing a framework for maritime spatial planning disposing for the land/sea interactions.
- (iii) the presentation and dissemination of the results of all the planned activities of both horizontal and individual activities: local (Region level) events will focus on individual activities, while horizontal activities will be presented at the national level (thus involving – although indirectly – Regions that are not participating in CAMP Italy).

This activity is based on **brainstorming sessions** and on **workshops**, where documents and decisions will be adopted, involving people from all the participating Regions, both internal to the project and public, at regional and national levels.

A **Project web site [www.camp-italy.org](http://www.camp-italy.org)** and the activation of a **web forum** for specific issues will be launched to support the project activities; in particular to provide information about the Project and background information on the objectives, expected results, involved partners and contacts; to make the information available, inviting comments and ideas from all interested parties; to serve as a channel of communication for news related to the events of the project, acting as the portal for access to the forum. Outlining the importance of ensuring and intensifying cooperation among partners through an online information sharing platform, on an internal part of the project website, a **structure for document sharing** will be created. Throughout the project, all internal working documents and project outputs will be stored here and made accessible to all project partners.

**Other initiatives** will be planned, playing a major role in presenting, promoting and disseminating project results and ICZM issues, either in the framework of CAMP Italy conferences or thanks to the participation to other events, to present CAMP Italy project and related actions.

Lessons learned from Individual Activities will be carefully analysed and considered as the basis for proposals about the ICZM implementation at national and regional level that will be presented in final Conference and Report (see section 4.4).

The following outputs are expected from the above activities:

- General co-ordination;
- Evaluation of results and durability of all the individual activities;
- Establishment of project structure and institutional arrangements;



- Co-ordinating missions, mission reports.

The following deliverables are expected:

- Inception Conference;
- Inception Report;
- CAMP Italy Project web site;
- Progress Reports;
- Final Integrated Project Report, Follow-up Proposals, and Urgent Investment Portfolio;
- Presentation Conference, Conference Documents and the Conference Report;
- Project Terminal Report and Self-Evaluation Facts Sheet.

### ***Estimated budget (in €)***

<b>Activities</b>	<b>MELS</b>	<b>Regions</b>	<b>MAP</b>	<b>TOTAL</b>
<b>Coordination and dissemination of the results</b>	<b>€94.650</b>	<b>€55.350</b>	<b>72.000</b>	<b>€222.000</b>

### **5.1.2 Capacity building**

The overall objective of this horizontal activity is to build and strengthen skills and experiences, while, in accordance with article 15.2 of the ICZM Protocol, guarantee the training and improving competencies of public Administrations at national, regional and local scale participating in the CAMP Italy Project.

This goal will be pursued primarily by designing and implementing innovative ways to maximize the effectiveness of the strategies outlined in documents issued by UNEP as well as by EU on policies related to the integrated management of the coastal zone.

In particular, the specific objectives of this horizontal activity are:

- developing adequate planning skills in order to be compliant with relevant references about "integrated management of the coastal zone";
- pointing out potential criticalities in decision-supporting and decision making;
- defining and suggesting opportunities for improvement and/or corrective actions;
- promoting institutional development (leveraging, whenever needed, the involvement of stakeholders and other relevant societal components), the development of human resources and the strengthening of management systems.

Capacity building will favour an overall vision shared between the different Authorities (at national, regional and local scale) about possible planning activities aimed at both marine and terrestrial coastal areas. Lessons learned from Individual Activities will be used as a basis for highlighting the need for a tighter integration between marine and terrestrial coastal management. Awareness of problems and opportunities at different scales and organizational

levels will certainly prove to be a key to an effective and consistent implementation of integrated management in coastal areas.

Capacity building activities will take place in CAMP Italy Regions as well as at national level.

The identification of potential participants to capacity building activities will take place on the basis of recommendations from the heads of the various Administrations involved (e.g. Regions, Provinces, Municipalities; Basin Authorities, Park Authorities, Port Authorities, and others who have expertise on coastal zone planning).

The PTCO and the NPC, assisted by other experts/representatives identified in advance by the Tavolo CAMP, will develop the program for this Action. Moreover, they will collect and analyse the results of this activity.

It is underlined the necessity of implementing the formulation of multi-level and open source **questionnaires** and to develop **e-learning models** as training courses (i.e. on Moodle platforms) with the cooperation and technical support of other project partners and INFO/RAC; as well as the rational use of social media, developing a common strategy since the use is complex and need to be harmonized.

Before starting the capacity building activities, a questionnaire aimed at defining the level of knowledge about ICZM will be administered to the participants (Questionnaire 1). The questionnaire will allow to define not only the starting level of awareness about ICZM issues, but also to optimize the selection of the topics to be presented and discussed.

At the end of the capacity building activities, a new questionnaire (Questionnaire 2) will be administered. This questionnaire, in addition to assessing the final level of knowledge about ICZM issues, will allow to collect hints and suggestions about the best corrective actions with respect to the issues that participants had previously indicated in Questionnaire 1.

This activity, through the organisation of workshops, should comprehend the following:

- creation and/or improvement of regions networking opportunities;
- national and international MSP and ICZM consultant connection.

Capacity building activities will be carried out by staff of MELS, of regional and governmental agencies (either involved or not in the CAMP Italy Project, e.g. municipalities, park authority, etc.), as well as by PAP/RAC, by other RACs, and by external consultants under the guidance of the NPC.

The possibility to organize a MedOpen virtual training course on ICZM is foreseen by PAP/RAC for participating regions.

The following outputs are expected from this horizontal activity:

- information and training to decision makers on planning projects in the coastal zone;

- development and improvement of performances and operating procedures of the bodies involved in the ICZM;
- creation and/or improvement of networking;
- endorsement of connections' expertise.

The following deliverables are expected:

- questionnaires;
- training activities;
- networking;
- dedicated sections in reports and conferences.

#### ***Estimated budget (in €)***

<b>Activities</b>	<b>MELS</b>	<b>Regions</b>	<b>TOTAL</b>
<b>Capacity Building</b>	<b>€31.550</b>	<b>€18.450</b>	<b>€50.000</b>

### **5.1.3 Data collection and management**

Information about Italian coastal zones is available from many different sources, ranging from those focusing on small scale features (e.g. cadastral maps), usually managed by local Administrations, to those focusing on large or global scale thematic layers (e.g. human impacts to marine ecosystems), that are usually freely available online (see <http://www.nceas.ucsb.edu/globalmarine> for the just-mentioned map). Unfortunately, information is often outdated, while different data sources are updated at different times, making synoptic data analyses very difficult, if not impossible.

The same problems affect marine data sources, although monitoring and assessment activities aimed at recent EU Directives provided a comprehensive reference of the available information as well as the basis for routine data acquisition programs. However, marine data that are potentially useful to coastal zone management are in most cases very sparse in time and space, while data sources are seldom synchronous.

Notwithstanding these limitation, effective coastal zone management relies upon the analysis of relevant information layers, which plays a fundamental role in supporting decision-making by evaluating alternate scenarios, in predicting and mitigating impacts as well as in optimizing *siting*, layout and design of coastal zone interventions.

This activity will not solve all the information-related problems that may hinder Italian coastal zone management, but it will aim at defining guidelines for effective data interoperability between CAMP Italy regions and possibly for data sharing at national level.

From this viewpoint, CAMP individual activities will be screened to find out what type of information is considered, how information is collected, to what an extent data support decision-making, how data are analyzed, etc. Basically, CAMP individual activities will be regarded as a sample of coastal zone management activities that can highlight problems as well as solutions,

while this horizontal activity will **define best practices** and **provide guidelines** to be adopted in the future from CAMP regions.

As the assessment of the ecological status of marine waters plays a major role in recent EU directives (e.g. the Water Framework Directive or the Marine Strategy Framework Directive), information about marine ecosystems will be carefully taken into account, especially in line with the need for a better integration with terrestrial data sources (e.g. those related to Habitats, Birds, Environmental Quality Standards and Bathing Water Directives) and with other relevant EU legislation (including the Common Fisheries Policy, e.g. Council Regulation (EC) No 199/2008).

Similar attention will be paid to economic and societal analyses about the use of marine ecosystems and of the cost of their degradation, which are expected to play a very relevant role in the future, although at present they are still in their earliest stages. Needless to say, these analyses can only be performed by taking into account the ICZM rationale and therefore they can be regarded as a strong link to other regional and national programs.

Retrieving, collecting, managing and analysing the available information is a very common task in supporting decision making. Effective user-friendly tools for managing complex scenarios in the most effective way can be developed, and possible environmental changes that may happen as a consequence of management can be predicted by mathematical models and Decision Support Systems (DSS).

The ICZM Protocol pointed out the need for collecting updated information on resources, activities, institutions, legislation and planning as a preliminary stage of any sensible action to be carried out in the coastal zone. Therefore, all the CAMP Italy specific activities, according to the Formulation and Implementation Manual of CAMP projects, must be supported by appropriate data management. This horizontal activity is obviously aimed at favouring this process as far as possible, but its ultimate goal is to define effective guidelines for data collection and management optimization, with special reference to data interoperability and harmonization.

In fact, CAMP Italy will try to harmonize spatial planning data and related metadata among the participating Administrations, taking into account the INSPIRE principles and aiming at defining the basic requirements for a spatial data infrastructure (SDI), i.e. a data infrastructure implementing a framework of geographic data, metadata and tools that can be easily and interactively connected, thus making any use of spatial data as efficient and flexible as possible.

Such an SDI should encompass not only technological issues or data standards, but also policies, institutional arrangements and human resources that make the available information accessible by the widest range of potential users. Needless to say Geographic Information Systems (GIS) and Remote Sensing (RS) should play a major role, underlining the necessity to use and develop an interoperable open source system for collection and harmonization of data among national and Mediterranean partners, in order to monitor coastal vulnerability and implementing specific data on ICZM.

While defining the guidelines for the implementation of an SDI will be the main goal of this horizontal activity, defining a shared set of thematic information layers will be a secondary, but no lesser, goal.

Finally, results obtained from the specific activities as well as their durability will be analysed according to a shared procedure that will be outlined and then applied for all the CAMP Regions.

This horizontal activity will be supervised by the NPC and by PTCO.

The following outputs are expected from this horizontal activity:

- overview of the data management and analysis solutions adopted by each specific activity;
- collection of the data sets produced by the CAMP Regions to support the individual activities;
- analysis of the main features of the Information Systems of the CAMP;
- definition of the largest subset of thematic information layers which is already available in all the CAMP Regions;
- definition of possible data conversion procedure, if data formats are not homogenous among Regions;
- guidelines for achieving a full interoperability of the Information Systems of all the CAMP Regions (through a shared SDI and in compliance with INSPIRE guidelines);
- identification of a preliminary set of other sources of information that may support CAMP activities and, from a more general viewpoint, future MSP/ICZM activities;
- overview of software tools that may support MSP and ICZM;
- collection of data about results and durability of Individual Activities, to support the assessments activities.

The following deliverables are expected:

- sections of the Inception Conference and Report;
- sections of the CAMP Italy web site;
- sections of progress reports;
- sections of final report and conference;
- guidelines for data interoperability.

***Estimated budget (in €)***

Activities	MELS	Regions	TOTAL
Data collection and management	€31.550	€18.450	€50.000

#### **5.1.4 Institutional coordination and public participation**

This activity aims at promoting vertical integration and the collaboration between Administrations for a better coastal management, the exchange of information and transparency, and in particular at transferring, sharing and discussing what will emerge from the critical analysis of the specific CAMP Italy activities to/with those entities, both public and private, concerned with coastal zones and enabled to ensure an effective broadening of appropriate participation in future decision-making and spatial planning processes.

In particular, it has the following general objectives:

- with reference to the specific CAMP Italy activities, promoting cross-sectorial institutional coordination among the various administrative services and regional and local authorities competent in coastal zones, with the ultimate aim of facilitating the creation of an ICZM National network;
- ensuring the adequate and timely participation in the transparent decision-making process by local populations and stakeholders (e.g. private and public workers associations, environmental groups, NGOs, general public).

Ensuring institutional coordination among the various authorities (national, regional and local) competent for both the marine and the land parts of coastal zones is mandatory to strengthen the coherence and effectiveness of the coastal strategies, plans and programs. The first general objective of promoting cross-sectorial institutional coordination is functional to creating and testing the National ICZM network which will be necessarily involved in the activities set out, among others, in Article 32 (Institutional Coordination) of the ICZM Protocol.

Similarly, guaranteeing appropriate public and institutional participation is an important and necessary element for the implementation of initiatives and actions designed to promote sustainable economic and social development in general, but this is especially true in the field of the ICZM, where the flow of inputs and "bottom-up" initiatives is a top priority in order to create suited conditions for sharing the benefits and limitations. The second general objective of ensuring the adequate and timely participation by local populations and stakeholders is functional to elaborate and testing the adequate instruments, procedures and measures specifically dedicated to ensure the appropriate involvement of territorial communities and public entities concerned, economic operators, non-governmental organizations, social actors and the public concerned in the phases of the formulation and implementation of coastal and marine strategies, plans and programmes or projects, as indicated in Article 14 of the ICZM Protocol (Participation).

Thus, it is underlined the necessity of developing an institutional framework on ICZM at the national level, while mapping stakeholders and testing models of participation as the Pro Action Café system and the EASW (European Awareness Scenario Workshop), and involving all actors and informing decision-makers on coastal vulnerability issues.

These activities are proposed, therefore, to inform competent national, regional and local coastal zone authorities, stakeholders and the general public to minimize the effects of the

critical elements for the implementation of ICZM at the National level and to enhance those that represent the strengths and virtuous elements available and highlighted through CAMP Italy Project.

The two general objectives can be thus divided into 6 specific goals:

- i. ensuring active involvement of stakeholders, institutions and general public in the implementation of the CAMP Italy Project;
- ii. providing information in an adequate, timely and effective manner, ensuring a full and transparent dissemination/information about the activities carried out in both horizontal and individual actions of the CAMP Italy Project (objectives, methodology, expected results);
- iii. building consensus from the public, economic and social partnership and stakeholders;
- iv. stimulating debate and alternate viewpoints to elaborate and collect alternatives proposals in order to: mitigate impacts on the environment, resolve conflicts among sectors, define mediation or conciliation procedures;
- v. contributing to the public, private community knowledge regarding the principles and objectives of the ICZM Protocol, and to the promotion of awareness regarding the benefits of the ICZM;
- vi. individuating the appropriate bodies or mechanisms, in order to avoid sectorial approaches and to raise awareness on profit opportunities coming from partnership;
- vii. build up a common Mediterranean vision in order to interact for mutual interests and to implement best practices among Mediterranean Country.

TC, PTCO, NPC, MELS and CAMP Regions with reference to the objectives, and in harmony with the acting entities, propose, implement and coordinate the Activity 4.

The objectives will be achieved through four sub-activities, which involve different approaches and instruments, as outlined below.

### ***Analysis of the specific CAMP Italy activities***

This sub-activity provides a **comparative analysis of the individual activities** to identify the constraints and administrative problems that may hinder future actions in the field of MSP and ICZM. It will therefore lead to the definition of shared procedures – in the spirit MSP and ICZM – for the resolution of conflicts, mitigation of impacts, the environmental restoration/conservation, land use planning, etc.

### ***Communication***

This sub-activity provides the **elaboration of a communication strategy**, at both regional (e.g. CAMP Regions) and national levels, which will be functional to promoting institutional coordination and to facilitate participation. At national level the main beneficiaries of this communication will be a range of various end-users: Italian coastal zone management community, employees at high management level in National administrations, managers of nature reserves along the coast, managers of coastal and marine related projects, Universities,

National stakeholders (e.g. fisheries and aquaculture and/or tourism national organizations), researcher communities. On the other hand, at regional level, the main beneficiaries will be: policy makers and decision-makers such as coastal mayors, employees at high management level in regional administration, local representatives and site managers of nature reserves along the coast, experts working for a provincial administration, the general public, regional/local coastal stakeholders (e.g. ports, fisheries and aquaculture local organizations, private enterprises; local researcher communities).

The Project Website, as well as the Forum, will provide an interface for exchanging and sharing information with (and between) stakeholders.

### ***Institutional Coordination***

In the field of ICZM, there is a need for closer coordination between national authorities and regional and local bodies in relation to the various authorizations for activities that may influence coastal zones. Therefore, adequate joint consultative bodies or joint decision-making procedures will be discussed and “experimental” institutional coordination (that interfaces consultative bodies, inquiries or public hearings procedures and possible partnerships) will be carried out during specific workshops. The results will thus be used to measure the efficacy of ICZM strategies and approaches identified, to discuss the elaborated ICZM instruments and related weaknesses and strengths for the governance applied to specific issues such as marine and coastal spatial planning and management.

### ***Participation***

Different stakeholders have both different contributions and different consultation needs at each stage of the decision process. Therefore, a participation strategy will be developed according to the stakeholders and to the level at which they may be involved: low level of public involvement or influence (inform, educate, share or disseminate information); mid-level (gather information, views); high level of public involvement or influence (discuss through two-way dialogue); high level of public involvement or influence (fully engage on complex issues, partner in the implementation of solutions). A list of possible stakeholders might include: the general public; residents of coastal areas, representatives or elected officials of local coastal communities; regional government ministries, local NGOs, local pressure groups; trade unions; media; the scientific research community; waste producers.

In particular at regional level several participation instruments will be activated:

- informing the public through events dedicated to provide citizens of the different coastal municipalities with the fundamental principles and objective of CAMP Italy;
- involving the public by focus group dedicated to the actual involvement of stakeholders in the analysis and discussion of CAMP Italy results and outputs;
- stimulating and promoting the structuring and functioning of Partnerships of two or more organizations: (i) between local authorities and multi-disciplinary academic experts; (ii) among homogenous entities (i.e. fishermen, tourist operators, islands populations, etc.) co-operating as a unit to influence developments for their common good, perform effective lobbying as an organization that works at the



political, public official levels, improve exchange of experiences and ideas, enhance abilities to develop projects.

This activity would also offer the opportunity to run pilot experiences to test the appropriate governance allowing participation, such as: (i) verifying how to facilitate public participation, to CAMP Italy in particular and to ICZM process in general, through new communication technologies (e.g. mobile data collection); (ii) setting of advisory committees or steering groups in a voluntary way; (iii) analysing the procedures followed where public consultation is mandatory (e.g. Environmental Impact Assessment, Strategic Impact Assessment, spatial planning procedures).

The following deliverables are expected from the above activities:

- Website contents;
- Dissemination publications;
- e-newsletter;
- ICZM Italian network (mailing list, contacts);
- Proposal of structure/content of 'experimental' institutional coordination;
- National conference (documents, report);
- Regional conferences (documents, reports);
- Internal reports and reports for the public;
- Participation in e-learning activities;
- A video production.

**Estimated budget (in €)**

Activities	MELS	Regions	TOTAL
<b>Institutional Coordination and Public Participation</b>	<b>€94.650</b>	<b>€55.350</b>	<b>€150.000</b>

**Table with Supervisors and/or contact persons for Horizontal Activities**

	Activity	Supervisor and/or contact person	Organization or Body	Telephone numbers	e-mail and Skype
5.1.1	Horizontal Activity 1Coordination and dissemination of the	Claudio Maricchiolo	INFO/RAC	06 50072177	<a href="mailto:claudio.maricchiolo@isprambiente.it">claudio.maricchiolo@isprambiente.it</a>

	results				
5.1.2	<b>Horizontal Activity 2</b> Capacity building	Emanuele Cimatti	Emilia- Romagna  XIX.	051 5276847	<a href="mailto:ecimatti@regione.emilia-romagna.it">ecimatti@regione.emilia-romagna.it</a>
5.1.3	<b>Horizontal Activity 3</b> Data collection and management	Luigi E. Cipriani	Tuscany  XX.	XXI. 055 4383835  XXII.	<a href="mailto:Luigi.cipriani@regione.toscana.it">Luigi.cipriani@regione.toscana.it</a>
5.1.4	<b>Horizontal Activity 4</b> Institutional coordination and public participation	Paolo Vargiu	Sardinia - Agenzia Conservatoria Coste	070 6065751	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a>

## 5.2 Individual Activities

The connection between terrestrial and marine areas is characterized by a fragile equilibrium, which is often disturbed by processes related to human activities in a diverse set of natural environments. In the CAMP Italy Project, one of the most important factors is the variety of types of coastal areas of the 3 selected regions. Such a variety is not just about the physical environment (morphology, geomorphology, geology, wave energy, etc.) nor about the diversity of biological communities hosted by these environments, but also about the different aspects of economics and sociology, which, depending on the history of the different areas, gave rise to a different impact of the various human activities (agriculture, industry, tourism, etc.).

The predominance of one or more of these connotations, in combination with the different times of human settlements along the coasts, produced a very diverse set of situations, where the natural environment and human activities have often produced completely different landscapes. In some cases man has maintained a close relationship with the ecosystem in which he had settled, adapting and conforming to the natural environment; in other cases, especially in the most recent decades, human settlements have deeply altered the natural system, often without a thorough knowledge of the ecosystem itself and its rules, thus producing a non-positive cascade of natural phenomena, with negative effects also on the economy.

Therefore, while investigating similar issues in the integrated management of the coastal zone, the project will face the challenge of completely different scenarios. As a consequence, the possible solutions could not be common to the different areas, as they might even point towards completely opposite directions, while methods and criteria can be possibly shared.

It is therefore useful to group the activities belonging to the integrated management of the coastal zone into different fields. For example, the management of phenomena such as the loss of coastline by erosion may fall within the issues of land-use planning, protection of biodiversity, or, even, socio-economic protection of a sandy beach. It should be noted that some of these actions may lie outside the strict competencies of State and of the MATTM.

The ICZM Protocol and the 2002 European Union Recommendation, however, pointed out that the management should use an ecosystem approach, hence the responsibility of the MATTM. Accordingly, the individual activities of CAMP Italy project belong, in relation to the specific objectives, to the following actions:

**Objective 1.** Improve the coordination capacities among different structures involved in coastal zone management (governance for coastal area) and both vertical (network of subjects) and horizontal (industry sectors) integration.

**Action 1.** *Planning of marine and terrestrial coastal areas.*

**Objective 2.** Maintenance of the ecosystem service flow through the reduction and control of human pressures and development of adaptation to the effects of climate change.

**Action 2.** *Protection, preservation and restoration of coastal and marine habitats.*

**Objective 3.** Verification of the sustainability of socio-economic activities which stress the coastal area through application of the ecosystem and the economic evaluation of ecosystem services (PES, TEEB, etc.); in particular tourism, fishing, coastal defence.

**Action 3.** Sustainability of socio-economic stress on the coastal zone (in particular tourism, fishery, structures for coastal defence).

The Individual Activities are the following:

<b>INDIVIDUAL ACTIVITIES</b>			
<b>Cod.</b>	<b>Area</b>	<b>Main thematic areas</b>	<b>Activity</b>
5.2.1	5	Action 1	<i>Monitoring the effects of Tuscany beach nourishment activities in the South of Ansedonia.</i>
5.2.2	1	Action 2	<i>Evaluating feasibility and effectiveness of the use of alluvial sediments extracted from the Magra River drainage basin in order to restore eroding beaches in the annexed coastal cell.</i>
5.2.3	1	Action 2	<i>Protection of the dunes of Lacona (Elba Island).</i>
5.2.4	2	Action 1	<i>Regulations for the removal of sand and material from marine quarries.</i>
5.2.5	2	Action 1	<i>Operational protocol for the reestablishment and consolidation of the dune belts (natural or artificial/reconstructed).</i>
5.2.6	2	Action 2	<i>Conservation of marine and coastal biodiversity with special reference to the conservation of minor species.</i>
5.2.7	2	Action 3	<i>Development and exploitation of new forms of sustainable tourism in protected natural areas.</i>
5.2.8	2	Action 1 and 2.	<i>Education and Communication to sustainability.</i>
5.2.9	4	Action 1	<i>Implementation of specific actions aiming to the sustainable use of beaches and the protection of coastal zones.</i>
5.2.10	4	Action 3	<i>Enhancement of architectural heritage for the creation of the first eco-hostel in the coastal area for sustainable local development (Buggeru site).</i>
5.2.11	3-4	Action 3	<i>GIRA – Integrated Fishing Resources Management.</i>
5.2.12	3-1	Action 3	<i>Asinara National Park and Pianosa Island (Tuscany Archipelago National Park) tourism Carrying Capacity Assessment.</i>
5.2.13	3-4	Action 1	<i>Sardinian Center for coastal monitoring and assessment.</i>
5.2.14	3-4	Action 1	<i>Coastal vulnerability assessment tool.</i>

Main thematic areas	Individual Activities within CAMP areas
<p><b>Action 1.</b> <i>Planning of marine and terrestrial coastal areas.</i></p> <p><b>Objective:</b> Improve the coordination capacities among different structures involved in coastal zone management (governance for coastal area) and both vertical (network of subjects) and horizontal (industry sectors) integration.</p>	<p><b>Area 1 TN:</b> None</p> <p><b>Area 2 ER:</b> 5.2.4 Regulations for the removal of sand and material from marine quarries. 5.2.5 Operational protocol for the reestablishment and consolidation of the dune belts (natural or artificial/reconstructed). 5.2.8 Education and Communication to sustainability.</p> <p><b>Area 3 SN:</b> 5.2.13 Sardinian Center for coastal monitoring and assessment. 5.2.14 Coastal vulnerability assessment tool.</p> <p><b>Area 4 SW:</b> 5.2.9 Implementation of specific actions aiming to the sustainable use of beaches and the protection of coastal zones. 5.2.13 Sardinian Center for coastal monitoring and assessment. 5.2.14 Coastal vulnerability assessment tool.</p> <p><b>Area 5 TS:</b> 5.2.1 Monitoring the effects of Tuscany beach nourishment activities in the South of Ansedonia.</p>
<p><b>Action 2.</b> <i>Protection, preservation and restoration of coastal and marine habitats.</i></p> <p><b>Objective:</b> Maintenance of the ecosystem service flow through the reduction and control of human pressures and development of adaptation to the effects of climate change.</p>	<p><b>Area 1 TN:</b> 5.2.2 Evaluating feasibility and effectiveness of the use of alluvial sediments extracted from the Magra River drainage basin in order to restore eroding beaches in the annexed coastal cell. 5.2.3 Protection of the dunes of Lacona (Elba Island).</p> <p><b>Area 2 ER:</b> 5.2.6 Conservation of marine and coastal biodiversity with special reference to the conservation of minor species. 5.2.8 Education and Communication to sustainability.</p> <p><b>Area 3 SN:</b> None</p> <p><b>Area 4 SW:</b> None</p> <p><b>Area 5 TS:</b> None</p>
<p><b>Action 3.</b> <i>Sustainability of socio-economic stress on the coastal zone (in particular tourism, fishery, structures for coastal defense).</i></p> <p><b>Objective:</b> Verification of the sustainability of socio-economic activities which stress the coastal area through application of the ecosystem and the economic evaluation of ecosystem services (PES, TEEB, etc.); in</p>	<p><b>Area 1 TN:</b> 5.2.12 Asinara National Park and Pianosa Island (Tuscany Archipelago National Park) tourism Carrying Capacity Assessment.</p> <p><b>Area 2 ER:</b> 5.2.7 Development and exploitation of new forms of sustainable tourism in protected natural areas.</p> <p><b>Area 3 SN:</b> 5.2.11 GIRA – Integrated Fishing Resources Management. 5.2.12 Asinara National Park and Pianosa Island (Tuscany Archipelago</p>

<p>particular tourism, fishing, coastal defence.</p>	<p><i>National Park) tourism Carrying Capacity Assessment.</i></p> <p><b>Area 4 SW: 5.2.10</b> <i>Enhancement of architectural heritage for the creation of the first eco-hostel in the coastal area for sustainable local development (Buggeru site).</i></p> <p><b>5.2.11</b> <i>GIRA – Integrated Fishing Resources Management.</i></p> <p><b>Area 5 TS:</b> <i>None</i></p>
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The following sections describe all the individual activities, giving an indication of what is to be done during the CAMP Italy Project.

***Estimated total budget for the individual activities (€)***

Activity	MELS	Regions	TOTAL
Individual Activities	€906.800	€3.760.200	€4.667.000

## **5.2.1 Monitoring the effects of Tuscany beach nourishment activities south of Ansedonia**

### **Background**

CAMP Italy Project will contribute to enhance coastal regions adaptive capacity to climate and non-climate impacts and support the preparation of ICZM plans at regional/local level for coastal adaptation to be endorsed by local coastal authorities. Furthermore, the project will develop a shared approach to evaluate coastal vulnerability and to develop governance systems which will be tested in specific pilot project areas. Pilot projects will focus on strengthening the natural resilience, building adaptive capacity and defining strategies and a governance system in order to effectively implement them.

The articles of the ICZM Protocol related to the following three individual activities are:

*Article 16 - Monitoring and observation mechanisms and networks*

*Art 20 – Land policy*

*Art 8 - Protection and sustainable use of the coastal zone*

*Art 10 - Specific coastal ecosystems, para 2 Marine habitats and 4 Dunes*

The individual activities involving the Region of Tuscany are mainly related to the problem of coastal erosion (art 16 of the ICZM Protocol), loss of areas of economic, social and ecological value (art 20 ICZM Protocol), weakening of the beach-dune system with wave-induced flood risk of the productive inland areas (art 10, para 4 ICZM Protocol), loss and fragmentation of natural habitats (art 8 and 10, para 2 ICZM Protocol). In particular, the southern stretch of the Tuscany coastline is characterized by a high level of naturalness and lack of coastal infrastructures. The neighboring Latium coast on the other hand is characterized by the presence of infrastructures that have influenced the coastal morphodynamic of the physiographic unit, such as the power plant at Montalto d iCastro and the jetties at the Fiora river mouth.

Taking into consideration that the direction of the net alongshore sediment transport is from south to north, all the physiographic unit is fed by sediments carried to the sea by rivers that outflow onto Latium territory and therefore an integrated coastal zone management is essential in such a way that new coastal restoration works at and/or strategies to rebalance Latium beaches do not induce negative impacts or reduce the resilience of the Tuscan coast.

In addition, the offshore sedimentation basin present today on the continental shelf is characterized by sand and gravel which are suitable for artificial nourishment of eroding beaches in the physiographic unit. This strategic resource, previously identified and partially quantified, will allow to implement strategies for coastal restoration to be coordinated between Regions, identifying priority access to the resource for those parts of the coast that are penalized for other territorial choices, such as the settlement of productive activities along the coast or the management of the lower parts of the rivers (jetties at the Fiora river mouth).

### **Objectives of the activity**

The objective of this action is to monitor the current state of the beach after the reconstruction and defence of the beaches between Ansedonia and Tarquinia, considering the impact of coastal infrastructures mentioned above.

In order to evaluate the effectiveness of recent restoration works on the morphodynamics of the beaches in Capalbio and plan any maintenance to be implemented in the future, it will be performed a set of surveys in order to assess the evolution of the shoreline and the morphology of the active beach profile. It will be important as well to perform grain-size analysis on samples of emerged and submerged beach in the intervention area, in order to assess the dynamics of the sediments used for beach nourishment projects carried out in recent years. The results of this monitoring program will also serve to implement the existing database of this stretch of coast and thus to define more accurately the evolution of the beach, especially considering recent river flooding events and severe winter storms. It should be emphasized the peculiarity of the intervention to restore the beach at Macchiatonda and Chiarone (Capalbio), which was characterized by beach nourishment with nearshore sediments, protected by a series of submerged geo-containers (polypropylene) groins filled with sand, and by the defence of the dune belt through the installation of windbreaks.

This could be a perfect case of conflict mitigation between stakeholders of neighbouring Regions. Monitoring programmes, data certification and standardization, monitoring results diffusion and communication through negotiating tables is an important case study for other Italian and European Regions.

Participatory processes are strengthened, and particular efforts made in order to bridge the gap between science and decision makers.

Data sharing and exchange are facilitated through the platforms linked to the stakeholders.

## **Outputs**

The objective is to evaluate the positive and negative interregional scale effects of coastal restoration interventions and coastal infrastructures, using a cost-benefit analysis applied according to the ICZM criteria. It will be assessed the effectiveness of the innovative restoration and rebalancing intervention on the beach at Macchiatonda and Chiarone in the Municipality of Capalbio. In particular, the durability of the intervention characterized by the use of geo-containers (polypropylene) submerged groins filled with foreshore sand, the beach nourishment carried on with sand withdrawn on the nearshore and the realization of windbreak fences for the recovery of the dune system.

In addition, it will be executed the evaluation of the sedimentary balance of the entire littoral cell in order to investigate if there is the possibility of a sustainable sediment stock management for the interests of the entire sedimentary physiographic unit. In the absence of this possibility, a coordinated plan for the management of continental shelf sediments will be developed in order to allow optimal use in an interregional perspective.



Conflict mitigation activities will be developed through compensation actions for which good and reliable data as well as shared methodologies will be used through open discussion among politicians, technicians, scientists and stakeholders. Sharing of resources (Ansedonia marine sand reservoir) and sharing of decisions methodology will be adopted with an interregional view (based on physiographic units) through a memorandum of understanding between the Region of Tuscany, the Province of Grosseto and the Municipality of Capalbio.

## Responsible for implementation

Tuscany Region - D.G. Environmental Policy, Energy and Climate Change – Sector for Protection and Value enhancing of the Marine and Coastal Environment, Province of Grosseto, local Stakeholders.

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
Mr. Luigi E. Cipriani	Regione Toscana Settore protezione e valorizzazione fascia costiera e ambiente marino	055 4383835 331 6979706	<a href="mailto:Luigi.cipriani@regione.toscana.it">Luigi.cipriani@regione.toscana.it</a> <a href="#">Luigi.cipriani5</a>

## Estimated Budget (€):

Individual activity	MELS	Regions	MAP (XY/RAC)	TOTAL
Monitoring the effectiveness of restoration projects aimed at balancing the beaches between Ansedonia and Tarquinia	26.667	40.000		66.667

## Time schedule

Activities	2014				2015				2016			
Public call to select a consultant (ATI)												
Data gathering and analysis of the initial scenario.												
Community participation: stakeholders' involvement in the processes.												
Data gathering and analysis of the new scenario + sediment budget+ coastal sediments management plan to be concerted with neighboring regions												
Zoom on the durability and effectiveness of geo-polypropylene												

submerged groins													
Public presentation of the results													

## 5.2.2 Evaluating feasibility and effectiveness of the use of alluvial sediments extracted from the Magra river drainage basin in order to restore eroding beaches in the annexed coastal cell.

### Background

In the stretch of the Ligurian-Tuscan coast fed by the Magra river, shoreline retreat is mainly due to the excessive and reckless withdrawal of sand and gravel from the Magra riverbed occurred between the 1950's and the mid-1980's. If this withdrawal was once triggered by the request of aggregates for building and road infrastructure construction, today it is necessary to reconfigure the longitudinal profile of the river in order to ensure its hydraulic effectiveness, that is an urgent action as a result of more frequent flood events caused also by climatic changes taking place with the consequent increase of extreme meteorological events.

The contrast to the first erosion occurrence was subsequently implemented through the construction of hard structural defenses that have contributed, over the long term, to further stiffen the coast causing the removal of sediment from the active beach profile and thus increasing erosion. The Tuscan area is characterized by coastal infrastructures that have influenced the dynamics of the area, such as the Marina di Carrara harbour, but also by pressures mainly related to the use of coastal resources for tourism purposes.

The Magra river drainage basin is interregional (Liguria and Tuscany); in addition, the majority of fluvial and coastal infrastructures were constructed firstly in Liguria territory thus inducing sediment starvation and shoreline retreat in Tuscany, as the net long shore sediment transport is directed North to South. The use of sediments (gravel and sand) from the drainage basin, and in particular from the artificial basins constructed for energy purposes is crucial for the effectiveness of the energy plant itself as it increases the volume of water stock. In addition this efficiency will help to decrease the request for new dams along the watershed which are responsible of the reduction in sediment load transport to the sea and thus coastal sediment deficit and beach erosion in the physiographic unit.

This could be a best practice to export to other coastal areas, if demonstrated its effectiveness.

The articles of the **ICZM Protocol** related to the following three individual activities are:

Article 16 - *Monitoring and observation mechanisms and networks*

Art 20 – *Land policy*

Art 8 - *Protection and sustainable use of the coastal zone*

Art 10 *Specific coastal ecosystems*

### Objectives of the activity

The objective is to get an integrated catchment and coastal sediments management, to be pursued through the drafting of a specific protocol and its implementation, for the reuse of alluvial sediments extracted from the Magra-Vara river system, including those accumulated in the artificial reservoirs. In addition, after recent flood events, strategic volumes of sand and gravel along the Magra river bed have become available. The objective is to plan dredging and transport to the related beaches in order to restore hydraulic effectiveness and beach sediment balance, after evaluation of their mineralogical, chemical and physical compatibility.

A cost-benefit analysis will be undertaken in order to demonstrate the effectiveness of the fluvial sediments management plan. It is important to assess that even though fluvial sediments deposited along the river bed during flood events will be transported naturally to the coast, in a quite long time, if there is no negative effects for the fluvial dynamics, this will result in a very efficient procedure because recently sediments for artificial beach nourishment come from the Po River drainage basin in Emilia Romagna Region with evident environmental impact for transport along roads (CO2 emissions, noise, traffic etc.). In addition, Magra river sediments have the natural geologic characteristics of the native beach.

## Outputs

Drafting of a specific protocol for the integrated catchment area and coastal management. Reuse of alluvial sediment reservoirs for the artificial nourishment of relevant (physiographic unit) beaches and assess their effectiveness and environmental and economic sustainability through a monitoring programme.

The protocol should be inspired by appropriate data management (see para 5.1.3) in order to become an efficient tool for institutional coordination and public participation (see para 5.1.4).

## Responsible for implementation

Tuscany Region - D.G. Environmental Policy, Energy and Climate Change - Sector for Protection and Value enhancement of the Coastal and Marine Environment, Interregional Magra River Basin Authority, Province of Massa - Carrara, Municipality of Carrara City, Stakeholders.

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
Mr. Luigi E. Cipriani	Regione Toscana Settore protezione e valorizzazione fascia costiera e ambiente marino	055 4383835 331 6979706	<a href="mailto:Luigi.cipriani@regione.toscana.it">Luigi.cipriani@regione.toscana.it</a> <a href="#">Luigi.cipriani5</a> A.

## Estimated Budget (€):

Individual activity	MELS	Regions	MAP (XY/RAC)	TOTAL

The middle basin of the Magra River and its tributary the Vara River and related coastal area	100.000	150.000		250.000
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**Time schedule**

Activities	2014				2015				2016			
Public call to select a consultant (ATI)												
Data gathering and analysis of the initial scenario.												
Community participation: stakeholders' involvement in the processes.												
Drafting the protocol and the Project to-re-use river sediments for the nourishment of the beaches												
Coastal restoration effectiveness assessment												
Public presentation of the results												

### 5.2.3 Protection of the dunes of Lacona (Elba Island)

#### Background

Coastal dunes at Lacona (Municipality of Capoliveri) are the last set of well-preserved coastal dunes present in the Tuscan Archipelago. They are known nationally (ISPRA publications) and by the MELS and the Region of Tuscany for their relict and environmental strategic value. For this reason, some procedures are in progress to be undertaken for their inclusion, as an appendix, in a Natura 2000 Network site, and the National Park of the Tuscan Archipelago has always fought to preserve their natural status.

The dune is threatened both by the sea, with a modest but steady erosion of the beach, and from the inland, because of the high number of visitors attendance during the summer and because of speculative appetites that are focused on some parcels of the private property. The dune has a very limited transverse and longitudinal extent (length of 1,200 m and a surface of about 33,000 square m), however it gives hospitality to habitats that are considered to be of primary importance at European level.

All dune areas are privately owned and there are several owners. The local population is actively involved through the constitution of a committee called "Friends of the dunes of Lacona", that is in charge to buy the existing private property within the dune system to turn them into infrastructures dedicated to visitors and environmental education.

The Tuscan Archipelago National Park is willing to complete the acquisition of a large part of the coastal dune system, with funds allocated by MELS. Moreover, a LIFE project is in progress (LIFE Montecristo) whose objective is the removal of alien flora and fauna components in the Tuscan Archipelago ecosystem, in particular *Ailanthus altissima*, *Carpobrotus sp. pl.*, *Acaciapycnacantha*. Experience gathered through this LIFE Project is an added value to the present Individual Activity.

The most significant portion, falling in Zone B of the Tuscan Archipelago National Park, belongs to the company MONTINVEST for different parcels, which is also the owner of some buildings constructed behind the dunes. In particular, there are a small building with a function of the local bazaar, a nightclub and a bar heavily used by tourists during the summer. The operation of the club involves complaints about the noise impact at night and degradation of the dune are related to the damage caused by uncontrolled incursions by motorized vehicles, etc.

The construction projects (urbanization) were realized in 2001 when there was already the National Park (established in 1998). The president in that moment, opposed to such intervention but *de facto* the buildings implementation went on with the signing of an agreement between a private entity and the Mayor of Capoliveri and the Park opposition was passed using the rules on town-planning regulations.

The agreement between the private entity and the Municipality of Capoliveri included a number of measures of compensation to the Municipality itself that issued the building permit. In particular, 6,000 square meters of dune environment would be awarded to public use and also a small private area would be likely to be used as public car parking.

The development of the original agreement that had to last 10 years (2011) from the subscription date is not known in detail but recently, having passed the expiry date, it seems

that there has been a new version of the agreement, in parallel to the negotiations between the National Park and stakeholders. The point is to understand whether the 6000 square meters of dunes are today (2014) public (owned by the Municipality), or are still private (Montinvest). In January 2011 the Park received a note signed by the Mayor of Capoliveri in which he says that "does not intends to exercise its right of pre-emption to purchase the dunes but is willing to sell them on payment to the Park."

In the Regional Strategy for Biodiversity (part of PAER recently approved by the Regional Council), the dunes of Lacona are an important preservation goal for the conservation of which several actions are provided, such as the verification of the sustainability of tourist loads (carrying capacity), problems solving, and inappropriate measure of "extension of Natura 2000 sites in the Gulf of Lacona and Stella" (high priority).

The restoration of the dunes at Lacona is also a goal of the Regional Landscape Plan (integration of the Regional Territorial Plan - PIT), recently approved by the Regional Government.

The articles of the **ICZM Protocol** related to the following three individual activities are:

*Article 16 - Monitoring and observation mechanisms and networks*

*Art 20 – Land policy*

*Art 8 - Protection and sustainable use of the coastal zone*

*Art 10 Specific coastal ecosystems, para. 4 Dunes*

## **Objectives of the activity**

The objective is the restoration and preservation of the dune system of the beach at Lacona (Elba Island), which is the last wreck of the coastal dune system of the Tuscan Archipelago. In particular, with this action the aim is to re-naturalize the degraded coastal dunes, preserve and enhance the still existing stretches, through the involvement of the local population that is already activated through the constitution of the committee "Friends of the dunes of Lacona".

The importance of this action is not only on the environmental side, even though it will be tested an innovative and environmentally friendly technique of dune restoration. The uniqueness of the action at the national level stands in the fact that the local community plus tourists and visitors will take ownership of the common good and is willing to be an active actor in its future management. The objective of this action is also to evaluate values not directly productive of income (i.e. the natural dune ridge does not produce direct income however it is a unique element in the Island thus its public use will be an added value of the whole territory; on the other hand its private and intensive use (bar, discotheque etc.) induces only local benefits.

## **Outputs**

- Development of a protocol for the restoration and consolidation of dune ridges, creating protected routes, and the conservation of biodiversity of wildlife and

vegetation for the different peculiar species that inhabit the coastal dune environment.

- Monitoring of the current state of the dune and beach system at Lacona, taking into consideration the effects of recent flood events that have characterized Elba island, and that, despite the intensity, were not sufficient to restore the beach sediment budget which is still in deficit.

Specific questionnaires will be prepared and distributed to beach users, as well as direct interviews, in order to evaluate how and how much the presence of a well preserved dune ridge with its unique autochthonous vegetation could be an attraction for tourists in order to quantify how much the dune system is evaluated as an attractive element for visitors willing to reach Elba Island.

The protocol and the measures implemented to protect the dune at Lacona will safeguard the ecosystem of the beach-dune system of Lacona, unique on Elba Island and throughout the Tuscan Archipelago, which is currently subject to intensive pressure factors which threaten these delicate environments: high and not properly organized anthropogenic presence during summer, loss of surface due to coastal erosion, urbanization of the areas behind the beach, spread of alien and invasive species of plants. The activities will therefore be also demonstrative, and this is an aspect greatly enhanced by the development of the Protocol.

The operating protocol could be developed in collaboration with the Conservatory Agency for the Coast of Sardinia Region and the Region of Emilia-Romagna, and linked to their individual activities. The protocol should be inspired by appropriate data management in order to become an efficient tool for the Horizontal Activity 4 "Institutional coordination and public participation" (see para 5.1.4).

### Responsible for implementation

Tuscany Region - D.G. Environmental Policy, Energy and Climate Change - Sector Protection and Value enhancement of the Coastal and Marine Environment, Sector Enhancement and Protection of environmental resources, Province of Livorno, National Park of the Tuscan Archipelago and Stakeholders.

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
Mr. Luigi E. Cipriani	Regione Toscana Settore protezione e valorizzazione fascia costiera e ambiente marino	055 4383835 331 6979706	<a href="mailto:Luigi.cipriani@regione.toscana.it">Luigi.cipriani@regione.toscana.it</a> <a href="#">Luigi.cipriani5</a>

### Estimated Budget (€):

Individual activity	MELS	Regions	MAP (XY/RAC)	TOTAL

Protection of the dunes of Lacona (Elba Island)	13.333	20.000	XXIII.	33.333
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### Time schedule

Activities	2014				2015				2016			
Public call to select a consultant (ATI).												
Data gathering and analysis of the initial scenario.												
Community participation: stakeholders' involvement in the processes.												
Development of a protocol for the rehabilitation and consolidation of dune ridges+monitoring.												
Evaluation of sedimentary flows between beach and dune, and the effect on the stability of the dune of beach erosion.												
Evaluation of the involvement and awareness of stakeholders.												
Public presentation of the results.												



## 5.2.4 Regulations for the removal of sand and material from marine quarries

### ***Background***

Strategic management of beach protection for sustainable development of coastal areas of the Mediterranean Sea is currently a topic of great interest, especially in the sea territorial areas in front of Emilia-Romagna's coast and the adjacent coastal areas. The innovative character of the activity is mainly in the opportunity to examine issues as important as that of changes in turbidity and sedimentation rate in different geographical areas: this is a very important aspect in view of the remarkable biodiversity of Mediterranean Sea.

To support the implementation of the ICZM Protocol, for the coming years, it seems crucial to fill the gap in legislative and administrative standardization and authorization procedures to operate and control the use of submarine sand deposits for the defense of the coast. The problems associated with the exploitation of those reserves, taking strategic interest for many Italian coastal regions, now require a framework at a national level.

These marine quarries, which are identified by most Italian regions in front of their coasts, are always present on the platform in front of the coastal region, both inside and outside the territorial waters: it is therefore necessary to push the validity of those addresses to the center line between the Italian coast and those of the bordering countries.

Emilia-Romagna Region has a long experience related to exploitation of off-shore deposits. In fact, two beach nourishment projects with sand coming from underwater deposits were carried out in 2002 and 2007 up to a total of over 1.6 million m<sup>3</sup> of sand harvested and used for the nourishment of beaches under erosion. Moreover, Emilia-Romagna Region participated to several EU project dealing with coast erosion and sustainable use of sand resource. In these fields the ReSAMMè sub-project "Search for submarine sand in the Mediterranean Sea", developed within the Regional Framework Operation BEACHMED-e, analyzed the technical tools available for the characterization and potential use of natural sand resources on the continental shelf, to face the erosion along the Mediterranean coasts. To do this, Resammè evaluated the potential availability of sand and gravels in the submarine deposits of participating countries (France, Spain, Greece and Italy), included new and existing sources, whose main characteristics have been analyzed in order to verify their suitability for beach nourishment activities for different coastal areas assets.

### ***Objectives of the activity***

This individual activity aims at providing guidelines for standardization at the national level about the research and the exploitation authorization of use of sedimentary accumulations above and below the seabed, within the boundary of territorial waters.

On the basis of administrative decentralization occurred with the Legislative Decree no. 112/98 and the jurisdiction assumed by the Regions to defend the coast from erosion and the integrated management of coastal areas in Art. 89 of the same, the indications for the use of marine deposits must consider the preferences of use for beach nourishment as already pointed out at the national level by the Legislative Decree 152/2006 Art. 109.

This activity comes as capitalization and actualization of achievements of BEACHMED-e Project (in particular, of the ReSAMMés sub-project - measure 2.3), with two specific events on this topic on 23 June 2006 in Rome and 22 February 2007 in Bologna (see website [www.beachmed.it](http://www.beachmed.it), event log).

Consistent with the actions identified in the ReSAMMés sub-project, the guidelines for the authorization and the exploitation of offshore sand deposits will be developed as:

1. Collection of basic information: gathering information from existing studies and projects concerning quantitative and qualitative characterization sediments in the area of interest.
2. Identification and implementation use of the SEA (MSP): the future exploitation of a sediment deposit needs the involvement of numerous authorities dealing with the sea use.
3. Definition of an integrated deposit management and exploitation approach through:
  - Identification of the areas where geophysical and geognostic campaigns can be carried out.
  - Selection of the technologies to use during the research phase.
  - Preliminary planning of the future sea research campaigns.
  - Organisation of the sand deposit database with collected data methodology for the analysis of the collected data.
  - Assessment of the deposits potential.
4. Dissemination: dissemination of the results, promoting participation of the various stakeholders involved at different levels.

### **Communication and participation**

The rules on the definition, re-organisation and promotion of procedures for consultation and participation in the formulation of regional and local policies of the Emilia-Romagna Region are specified in the Regional Law February 9, 2010 n. 3. See above.

### **Outputs**

- Preparation of guidelines governing the exploration and production of sediments in the seabed, to be submitted to the Ministry of the Environment and the Protection of the Sea and the Territory as a valuable tool for the public administration to regulate the taking of marine sands and aggregates from quarries.

In general terms, the expected results will be:

- environmental: preserving coastal and marine ecosystems and reducing environmental impact related to the removal of sediments from marine deposits;

- social: improving management by operators and local authorities; increasing protocol transparency;
- economic: developing a cost-effective tool for integrated management of extracted material, which could also be transferred to similar national and international contexts;
- occupational: creating employment opportunities within the network-based management system of sediments as well as in the field of utilization.

### **Responsible for implementation**

Emilia-Romagna Region

<b>Supervisor and/or contact person</b>	<b>Organisation or Body</b>	<b>Telephone numbers</b>	<b>e-mail and Skype</b>
Mr. Roberto Montanari	Regione Emilia-Romagna Servizio Difesa del suolo, della costa e Bonifica	051 5276880	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>

### **Estimated Budget (€)**

<b>Individual Activity</b>	<b>MELS</b>	<b>Region</b>	<b>MAP</b>	<b>TOTAL</b>
<b>Regulations for the removal of sand and material from marine quarries</b>	<b>€6.667</b>	<b>€10.000</b>	<b>X</b>	<b>€16.667</b>

<b>Activities</b>	<b>2014</b>				<b>2015</b>				<b>2016</b>			
1.Collection of basic information												
2.Identification and implementation use of the SEA												
3.Definition of an integrated deposit management and exploitation approach												
4.Dissemination:												

### **5.2.5 Operational protocol for the reestablishment and consolidation of the dune belts (natural or artificial/reconstructed)**

## **Background**

In the Emilia-Romagna region, as in many other Mediterranean low-lying coastal areas, the beaches and the sandy coast line are often in precarious balance because of an increasing probability of erosion and for a constant flooding risk for unpredictable storm surge events. The ICZM Guidelines, approved by the Region of Emilia-Romagna in 2005, define between the various actions for the protection and rehabilitation of coastal dune also their reconstruction, where possible, on the back of the beaches and the introduction of a legislation to protect the dunes that still exist and for their recovery and rehabilitation.

In addition to the decrease in river sediment inputs and the increasing of subsidence effect, one of the main factors of risk on coastal areas is determined by the gradual “dismantling” of the natural dune structure. The reserve sand for beach nourishment works as defense of natural beaches and offers a good contrast to the intrusion of the salt wedge in defense of the freshwater aquifers of the immediate hinterland.

The sand dunes used to be extended along much of the coastal region. Actually, of over 130 km of coastline in Emilia-Romagna, only 31 km show the presence of evident natural dunes, of which about 12 km in the Province of Ferrara and 18 km in the Province of Ravenna; the remainder is distributed along the southernmost part of the coastline. The natural dunes, even outside of protected natural areas, are protected elements by Regional Landscape Territorial Plan (PTPR), the Provincial Territorial Coordination Plan (PTCP) and the Plans of the beaches (Municipalities).

Since the 1950, the intensive use of the beaches for tourism was the major cause of coastal dune systems decline. Currently, the regional dune areas cover an area of 19 km<sup>2</sup>, but only 3% of it is made of active sand dunes, about a quarter of which are at risk of erosion because of the reduced beach in front of the dune (<20 m). The vegetation of the few remaining active dunes is often poor or nearly missing and in any case not sufficient to ensure the function of sediments retention and stabilization, that is typical of an undisturbed and well developed plant cover.

The experience gained during the INTERREG III C BEACHMED-e project (POSIDUNE sub-project) at the FoceBevano pilot site (Province of Ravenna) and during the 2008/09 monitoring period, allowed to formalize some guidelines representing the basis of a first operational protocol for the reconstruction and/or restoration of coastal sand dunes in this territory.

## **Objectives of the activity**

Coastal areas should be subject to effective conservation criteria such as potential breeding and nursery areas. These areas are significantly affected by human impacts at different levels and are threatened by climate changes. It is also clear that any action aiming to safeguard the environment surrounding the beach will have a positive effect only if the beach itself will be preserved and protected. In this contest, the proposed action will have a double significance both towards conservation of wildlife and plant biodiversity, applied to the peculiar species that inhabit the unique dune environment and towards integrated coastal zone management, helping the coastal system to defend itself from erosion.

The objectives refer to the implementation of experience and technical potential obtained for transferability of projects in other sites in the coastal area of Ferrara and Ravenna or areas of the Po Delta Park. The real goal aims to develop a protocol for the redevelopment and consolidation of sandy dunes, as part of a broader effort to enhance their importance from the environmental and touristic point of view, as well as that of their defense function against the risk of marine ingression. Works of this kind become extremely important in terms of conservation of wildlife and biodiversity of plant and animals for the various peculiar species that inhabit the dune environment.

### **Communication and participation**

The rules on the definition, re-organisation and promotion of procedures for consultation and participation in the formulation of regional and local policies of the Emilia-Romagna Region are specified in the Regional Law February 9, 2010 n. 3. See above.

### **Outputs**

As output of the protocol, the parties involved will be interested in the implementation processes aimed at environmental rehabilitation of the dune contexts; this involvement requires a system of protection against environments reconstituted and management. As result, it is expected the preparation of an operational protocol for the rehabilitation and consolidation of sandy dunes, natural or remanufactured. It is so important that this operative protocol is applicable to the Emilia-Romagna's dune areas, but even in other contexts of Mediterranean coastal areas.

Therefore, the expected results of this activity are:

- Preparation of an operational protocol for the rehabilitation and consolidation of sand dunes, natural and/or artificial/rebuilt;
- Preparation of a draft plan for the implementation of as required in the afore-mentioned Protocol.

The Protocol will have the following contents:

- reference model for the northern Adriatic coastal dune systems;
- key-species to be used in consolidation of natural dune or construction of sandy dune;
- biodiversity aspects;
- origin of the plant material used, timing and mode of collection;
- propagation and cultivation in the nursery;
- planting (how, when and logistic aspects);
- protection from trampling;
- monitoring;
- costs.

This action can improve the supply of a type of tourism related to the nature, offering at the same time a defense against erosion and saline ingression in the pine forests.

**Responsible for implementation**

Emilia-Romagna Region

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
Ms Simona Fabbri	Regione Emilia-Romagna Servizio Tutela e Risanamento Risorsa Acqua	051 5276995	<a href="mailto:regione.emilia-romagna.it">@regione.emilia-romagna.it</a>

**Estimated Budget (€)**

Individual Activity	MELS	Region	MAP	TOTAL
Operational protocol for the reestablishment and consolidation of the (natural or reconstructed) dune belts	€5.333	€8.000	X	€13.333

Activities	2014				2015				2016			
1. Preparation of an operational protocol												
2. Preparation of a draft plan												
3. Dissemination												

**5.2.6 Conservation of marine and coastal biodiversity with special reference to the protection of minor species**

**Background**

In light of the recognized potential of spawning grounds and nursery, coastal areas must be subject to effective conservation policy. Nevertheless, it is known that the same areas are significantly affected by anthropogenic impacts resulting from the emission of pollutants and from the existing infrastructures. It can be therefore necessary to mitigate the pressures through

programs for environmental protection and restoration. The protection of nature and biodiversity can be a very challenging task, because it must take into account many different measures aimed at protecting, promoting or developing the natural heritage.

Conservation and protection of biodiversity in marine, coastal and transition areas are issues of great interest not only at European level, but also for the entire Mediterranean basin. According to the IUCN (International Union for Conservation of Nature), many populations of different plant and animal species in the world are already greatly decreased, and, in many cases are still rapidly decreasing. This is the last step before declaring the extinction of these organisms that today still live in the wild. Particular protection should be addressed to the so-called "minor species" (reptiles and amphibians), native of north Adriatic marine areas and lagoons of Emilia-Romagna.

The groups identified are part of the so-called "minor fauna", that has now taken a scientific and managerial value important as Birds and Mammals. The zoological groups identified as indicators are: among the insects, Coleoptera, Odonata, Hymenoptera, Diptera; among other invertebrates, terrestrial and freshwater Mollusca; and among the vertebrates, some species of freshwater fish like gobies (*Knipowitschia*) and three-spined stickleback (*Gasterosteus aculeatus*), amphibians, reptiles and small mammals (rodents and Soricomorpha). These groups exhibit excellent quality of ecological indicators, that can be used to interpret ecological situations present or even past. Amphibians are tied to the ground in the stages of the life cycle outside of the breeding season, during which they are concentrated in wetlands. In particular, the anurans as the toads *Bufo bufo* and *Bufo viridis* and some species of frogs such as *Rana dalmatina*, *Rana lessonae* and *Rana latastei* have a close relationship with this environment, playing an active role as predators of invertebrates. Reptiles are represented by Lacertidae (*Lacerta bilineata*, *Podarcis sicula*, *P. muralis*), Anguillidae (*Anguilla anguilla*) and snakes (various species), elements that represent the soil food chain. In the coastal area of Emilia-Romagna, there are also two species of Testudinata, such as the Hermann's tortoise (*Testudo hermanni*) and the European pond turtle (*Emys orbicularis*). Many of these species have herpetological Community Importance as in serious risk of extinction. Insectivores such as long-tailed shrews (*Sorex* sp.) and musk shrews (*Crocidura* sp.) play a complex role of predators and prey, while rodents become important in dealing with the vegetation and as prey of various species of birds and mammals.

### **Objectives of the activity**

The protection is accomplished through different techniques that, starting from the knowledge of the biodiversity level and the factors that may threaten it, relate, for example, the in situ and ex situ conservation of plant and animal species, the preservation and restoration of habitat in which the species carry out their biological cycle, the maintenance and creation of an appropriate ecological connectivity between the various environments. Adequate knowledge and technical procedures are, however, only a necessary condition, as their full application can be successful only if they are translated into clear and effective rules that define who has the responsibility to enforce them, which are the objects of protection, which are the modalities of implementation, what are the penalties for those who transgress, what are the financial resources committed.

This activity involves the implementation of measures inspired by the criterion of environmental sustainability and aimed at durable and long-term effects. At the same time, among the outputs it will include proposals for actions aimed at the sustainable development of traditional activities and functions of new educational and training which could cause the birth of new companies and small local economies non-invasive and natural little impact on the environment.

The coastal area of Emilia-Romagna shows an heterogeneous structure, consisting of a series of ecosystems ranging from coastal forests (holm oak and pine forests), to wetlands, coastal dunes and agro-ecosystems. The main problem of these ecosystems is the lack of connection in most of the areas of natural interest, becoming as “true islands” for the populations of amphibians, reptiles, small mammals, insects and other invertebrates. The main goal of an action plan of environmental restoration of the coastal territory finalized to an increase in biodiversity is identifying and protecting sites with potential vocations to host species of amphibians and reptiles, with particular reference to those most threatened by anthropic activity.

It's necessary to realize a territory management finalized to the gradual establishment of ecological networks, obtained by linking different natural and semi-natural elements. The environmental quality of areas as the Park can be improved by creating connections (ecological corridors) between fragments of natural habitat wrecks, such as edges of fields, uncultivated areas, bands wooded shelterbelts, lowlands flood plains, water networks.

### **Communication and participation**

The rules on the definition, re-organisation and promotion of procedures for consultation and participation in the formulation of regional and local policies of the Emilia-Romagna Region are specified in the Regional Law February 9, 2010 n. 3. See above.

### **Outputs**

In summary, the outputs will include:

- Adoption of an Operational plan for the re-naturalization of the river mouths and degraded coastal areas (if possible with the establishment of Biologically Protected Areas), working also to preserve and enhance of those that still exist.

Wetlands: some wetlands, as ditches, ponds, pools and wet meadows, have to be the subject of restoration and protection projects. It's necessary to provide a hydrological management that allows the complement of the reproductive cycles of the herpetological species, maintaining relatively constant the water levels. It's crucial the reconstitution of suitable habitats, like small wetlands (ponds and small lakes), following some important lines. It's important to plant the bands surrounding the interested area with autochthonous shrub species to protect water bodies and, in the same time, to create ecotone zones that attract amphibians, reptiles, small mammals,



insects and other invertebrates, and to serve as areas of refuge. The creation of these small wetlands is especially addressed to the most ecologically vulnerable species, like *Ranadalmatina*, *Triturus carnifex* and *Lissotriton vulgaris*. The same recommendations are useful for *Emys orbicularis*, species of Community Importance, included in Annex IV of the Habitats Directive (92/43/EEC). Among the insects and other invertebrates, some different species, actually at risk, are to be emphasized such as water beetles and odonates. For some species, as *Pelobates fuscus insubricus*, *Ranala tatei*, *Triturus carnifex*, *Lissotriton vulgaris* and for the European pond turtle *Emys orbicularis*, reintroductions could be carried out in controlled environmental conditions.

Wooded areas and coastal dunes: it's necessary to increase and maintain the conservative approach for the few wooded areas present, increasing of deadwood vegetable that helps to create microhabitats of soil and shelters useful for various species of amphibians (*Bufo bufo*, *B. viridis*, *Hyla intermedia*, *Rana lessonae*), reptiles (lizards and various species of snakes, including *Coronella austriaca* and *Anguis fragilis*) and small mammals (rodents and Soricomorpha). For the Hermann's tortoise (*Testudo hermanni*), currently present with an active population within the "Boscodella Mesola", it's necessary to establish specific protected areas where it's possible to make restocking plans. To achieve this goal, it is desirable to arrange outdoor enclosures to keep breeding pairs from "Boscodella Mesola" and to follow the eggs deposition and the newborns birth. Many experiences in other European countries have shown that for the success of the tortoises' reintroduction it is necessary to minimize the threat factors, to respect all the requirements of its biology and behavior, and to have a high number of adults and young "founders".

- Preparation of guidelines for promoting sustainable artisanal fisheries operating with selective gear.

The reference is relating to the sea turtle (*Caretta caretta*) and trauma that it can suffer from fishing. As already highlighted by the results of the Regional Network for Conservation and Protection of Sea Turtles (DGR n. 646 of 21 May 2012), a possible action will involve training and communication on best practices to be applied in case of hauling fishing nets containing specimens of *C. caretta* still alive. A similar action is to be expected on the items affected by hypothermia in very cold winters.

The guidelines have to take into account the outputs produced within the framework of the implementation of the Action Plan for the conservation of marine turtles in the Mediterranean, mainly the sea turtles handling guidebook for fishermen, which is translated into many Mediterranean languages.

Moreover, mitigation measures of marine turtles by catch were discussed within GFCM and are tested in different area in the Mediterranean.

RAC/SPA could contribute as a technical partner to this Activity in the framework of the 'Action Plan for the conservation of marine turtles in the Mediterranean Sea'. RAC/SPA could also make linkages with other similar initiatives at Mediterranean regional or national levels.

- Promotion of environmental educational programs at regional level.

When people realize how much we depend on biodiversity and the integrity of ecosystems around us, they agree on the need to preserve and express the desire to do better and to do something about it. This way it becomes essential to set up research campaigns and to carry them out in conjunction with environmental awareness campaigns. Promotion of a tactile and visual campaign, during which it is possible to show and teach how biodiversity and its delicate balance may survive, will prove really important. The campaign will develop in two phases: at first, it will attempt to bring citizens closer to the concept of biodiversity, explaining what it represents, what the role of human beings is and how it is affected by the modern world. At the same time, it will show just how biodiversity is essential for humanity as well as the problems related to its decline. During the second phase, the focus will be on "emotional" aspects trying to link what is important in people's daily life with biodiversity safeguard and with the resulting benefits. This way we will try to motivate people to act in support of biodiversity.

- Drafting a Final Report on the activities carried out.

### **Responsible for implementation**

Emilia-Romagna Region

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
Mr. Emanuele Cimatti	Regione Emilia-Romagna Servizio Tutela e Risanamento Risorsa Acqua	051 5276847	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>

### **Estimated Budget (€)**

Individual Activity	MELS	Region	MAP	TOTAL
<b>Conservation of marine and coastal biodiversity with special reference to the conservation of minor species</b>	€46.534	€69.800	X	€116.334

Activities	2014				2015				2016			
1. Operational plan for the re-naturalization of the river mouths and degraded coastal areas												

2. Preparation of guidelines for promoting sustainable artisanal fisheries operating with selective gear												
3. Promotion of environmental educational programs at regional level												
4. Final report and Dissemination												

### 5.2.7 Development and exploitation of new forms of sustainable tourism in protected natural areas (Emilia-Romagna)

#### **Background**

In the “Delta del Po” Park (Emilia-Romagna) the fragmentation of landscape produces a lot of relict natural areas surrounded by a more or less diverse territorial matrix. Assuming that it is not possible to preserve areas of natural importance without control and without knowing which human activities are included, it is essential to design and create new forms and possibilities of eco-tourism, in order to spread more and more the message of respect and enjoyment of the natural heritage. The respect for and knowledge of nature acquires greater value and is most effective when the user is involved and "palpable".

It becomes important to create land and sea routes, to organize workshops and informative fairs, to decide where to drive tourists to discover environments as well as varied and important information that can be found precisely in the area studied. Nowadays, the current protection policies obtained through specific constraints and reducing the causes of degradation are not always so effective. It is therefore increasingly needed to focus on improving the balance of nature vs. anthropic disturbances, taking into account, where possible, the quality and value of natural elements.

Tourism and environmental education should be the main activities, suitable for connecting the different parts of the “offer” of the natural system that allows to make such recovery operations. The presence of a vast and varied audience would also contribute to the demand for products and services that should have an ecological quality labeling.

#### **Objectives of the activity**

Among the mechanisms that may trigger sustainable tourism, the realization of naturalistic - cultural paths are able to increase the potential of the sites to be promoted. Lately, at European level, to increase the level of research activities, also to get people involved at broader level, the need has arisen to link research and sustainable tourism to the concept of citizen science. Formally, citizen science has been defined as "the systematic collection and analysis of data; development of technology; testing of natural phenomena; and the

dissemination of these activities by researchers on a primarily unprofessional basis". Citizen science is sometimes called "public participation in scientific research." Many citizen-science projects are now taking advantage of mobile phones and other consumer electronic devices with recording capabilities for easy data collection. In compliance with the fundamental criteria of sustainability the proposed action considers the possibility of introducing new functions in the territory, through which further the purposes of maintenance and improvement of environmental quality and the creation of new uses of land resources. This activity, involving a coordinated effort between the public and private parties, aims to create a regional network of companies operating with producing local products, and preserving and promoting the traditional activities.

### **Communication and participation**

The rules on the definition, re-organisation and promotion of procedures for consultation and participation in the formulation of regional and local policies of the Emilia-Romagna Region are specified in the Regional Law February 9, 2010 n. 3. See above.

### **Outputs**

- Adoption of Operative Plans for effective environmental disclosure.

The environmental communication and disclosure can operate on different levels and include an almost endless series of actions and activities. In order to send a message, it's necessary to define and select the best, the most effective and direct ideas, first of all identifying the target of the message. Specific operational plans will be developed in relation to the target, taking into account the individual needs in terms of time, place, activity, etc. In particular, these actions will be dedicated to schools, families, tourists, citizens. The issues and the sites involved in the actions will be closely linked to the conservation of marine and coastal biodiversity, with particular reference to the conservation of minor species, with the goal to "make system" among actions, initiatives and activities planned by the Region of Emilia-Romagna (Individual activity 3.2.6).

- Creation of land-sea routes.

Land-sea routes will be processed, each in relation to a specific target. General characteristics of the routes will be:

- Centrality of location: the routes will be developed in sites particularly important and significant from the point of view of nature and environment (high value in terms of biodiversity, presence of rare and/or especially protected species of plants and animals). For example, coastal dunes and pine forests are cited, but also areas as the Ortazzo and Ortazzino wetlands, sites of Community Importance and a Special Protection Area in the Province of Ravenna, the OasiLipu Volta Scirocco, wetland located in the southern part of the Valli di Comacchio, and the Area di TutelaBiologicaPaguro, the first marine site of Community Importance established in Italy;

- Practical/operational involvement: in case both of a proposal for the schools and for tourists and citizens, the land-sea routes will be characterized by a strongly practical and engaging approach, in which participants will be asked to "do", as well as to listen and observe. If one of the objectives of the project is to spread the culture of citizen science, then it is necessary that through all the actions of the project, including land-sea routes then, is transmitted to the citizens the method and the scientific approach, the habit to comply with a careful and critical eye and the ability to process the collected data.

- Organisation of informational workshops.

Informational seminars will be organized, in relation to different targets, especially schools, citizens and economic operators (e.g. lifeguards, traders, etc.). The seminars will aim to disseminate the principles and actions of the project and, more generally, to spread the culture of citizen science. As routes, also the seminars will feature a presentation part flanked by a general, important, practical experience, according to the principle of "if I hear I forget, if I look I remember, if I do I learn."

- Proposal of innovative strategies for data collection through the involving of the science citizens.

In the preliminary phase, all the instrumental resources that already exist on the recognition of animal and plant species will be identified and networked among themselves; the "SiiT Project - School-oriented Interactive Identification Tools: exploring biodiversity in a cross-border area" is cited as example, aimed to enhancing the knowledge of biodiversity in an area from the eastern Adriatic to western Slovenia. On the basis of these ones, special media and digital guides will be studied, which will lead to the discovery of some ecosystems and animal and plant species that characterize them. These guides have the characteristic of being free to download and can be used for recognition in the field of animal and plant species, also by those who are not particularly expert; they represent a kind of operational tool that can also allow the citizen, passionate or simply curious, to contribute to research indicating the presence, or disappearance, of a given species in a particular environment. The information can then be shared on a forum especially created and published in project website.

**Responsible for implementation**

Emilia-Romagna Region

<b>Supervisor and/or contact person</b>	<b>Organisation or Body</b>	<b>Telephone numbers</b>	<b>e-mail and Skype</b>
Mr. Emanuele Cimatti	Regione Emilia-Romagna	051 5276847	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>

	Servizio Tutela e Risanamento Risorsa Acqua		
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**Estimated Budget (€)**

Individual Activity	MELS	Region	MAP	TOTAL
Development and exploitation of new forms of sustainable tourism in protected natural areas	€15.333	€23.000	X	€38.333

Activities	2014			2015				2016		
1. Operative Plans for effective environmental disclosure										
2. Land-sea routes										
3. Informational workshops										
4. Proposal of innovative strategies for data collection through the involving of the science citizens										
5. Dissemination										

**5.2.8 Education and communication to sustainability**

**Background**

The protection of the environment in the field of tourism is now a priority for all countries of the Mediterranean basin and its importance has been highlighted by the European Union through several measures, policies and intervention programs. So many European projects involve people like science citizens: a great chance to obtain a lot of useful data and an education and communication to environmental sustainability.

To get the right level of communication and environmental education it must be ensured the transfer of qualified information about the episodes ecological diseases, such as eutrophication, mucilage, weed presence of jellyfish, drop in fishing, and so on. This principle has already been exploited in the past, on occasions of particular emergencies, and gave excellent results. A proper and effective communication about issues related to complex ecological and natural systems can result only from authoritative sources.

Following a thorough Stakeholder Analysis, it is possible to identify the best channels for a good dissemination and communication at various levels to different groups of interest. The

diffusion of environmental management systems can be enhanced by the synergy between existing businesses, institutional traders and trade associations. Choosing to operate on the side of communication to deepen the use of environmental management tools, such as communication tools, implies a marked improvement in the relationship with the authorities and stakeholders, as well as an improvement in the awareness and environmental sensitivity of public opinion.

### ***Objectives of the activity***

The attention on the issue of environmental liability must be promoted by Institutions and Entities. Then the evaluation of a wide spectrum of variables for a correct observation of the impact of the management on the territorial, economic and social reality should be carefully considered. This means promoting and supporting a consistent and precise communication with all stakeholders, also through new methodologies (but supporting the ones already used).

It becomes important an assessment of the stakeholders for choosing the most appropriate tools with which to set up a proper and continuous activity of specific environmental communication. The objective of this activity is thus to define an effective communication strategy, constructed with the following methodological approach:

- a) identification and characterization of the stakeholders (who?);
- b) identification of the communicational objectives among the various stakeholders (why?);
- c) definition of the contents of the communication on sustainability issues (what?);
- d) planning of a communication plan (how?).

The main problem is the heterogeneity of the technical skills, scientific knowledge, culture and sensitivity to the environment of the parties involved: so this activity it will be set for this survey through questionnaires and interviews.

### **Communication and participation**

The rules on the definition, re-organisation and promotion of procedures for consultation and participation in the formulation of regional and local policies of the Emilia-Romagna Region are specified in the Regional Law February 9, 2010 n. 3. See above.

### ***Outputs***

In compliance with the fundamental criteria of sustainability, the proposed activity considers the possibility of introducing new functions in the territory, through which further the purposes of maintenance and improvement of environmental quality and the creation of new uses of land resources. The activity involves a coordinated effort between the public and third parties, proposing the creation of a regional network of companies that can create an offer based on local products and traditional activities.

The main expected outputs are:

- Drafting of a report following a thorough Stakeholder Analysis

The Stakeholder Analysis is a process of gathering and analyzing information to determine which interests should be considered before embarking on the implementation of an intervention. Because this process involves implicitly identifying the different interest groups, it is accomplished through three distinct phases:

- 1) Analysis of the purposes of the action in order to understand who and how it might have an interest in the intervention;
- 2) Preparation of a list of all possible stakeholders;
- 3) Selection of stakeholders identified based on their characteristics.

- Preparation of a strategy for updating and management of web-based communication (mailing lists, forms, leaflets, websites)

The Emilia-Romagna Region has adopted a Communication Plan (approved by Council Resolution no. 1935 30 November 2009) that, by providing a section on the web, will be the operational base for the preparation of a strategy for updating and the management of communication via the web.

- Preparation of a proposal for the creation of a Web Journal emailed and downloaded from the site that can keep informed the stakeholders

It proposes broadening the channels of communication between science/research and citizen taking advantage of new technologies through the study of an App that allows a real-time connection with the science and research applied to the territory: environmental emergencies and current events, naturalistic news and facts, and other information related to the health status of the territory. The project will combine the classic way to inform new strategies for contact and disclosure, to create an area of common interest between science/research and citizen, a concrete context of the exercise of citizenship.

- Promotion and organisation of dissemination events, conferences and seminars

In particular, the Centers Visits to the Park Authorities will be able to host conferences and seminars dedicated to the research, effectively making them places of encounter with the researcher/scientist, which give space and voice to the results of research and experimentation.

- Preparation of a proposal for the creation of a web streaming TV for information widely disseminated and accessible

The proposal will be formulated on the basis of information gathered from LepidaSpA and Lepida TV. In particular, Lepida TV is a communication project for the Community Network of public bodies of Emilia-Romagna, structured with an editorial staff (the guarantor for the selection and validation of materials) and a technical component (responsible for the design and



delivery of services interactive and technological infrastructure), both in the hands of Lepida Spa. Lepida TV is one of the elements of the Platform for Multimedia and Multichannel that the Emilia-Romagna Region and Lepida Spa make available to the Community Network. Thanks to Lepida TV, entities involved share their own content or interactive audio-video on the whole region territory for the TV part and anywhere via Internet.

- Preparation of proposals on the content and structure of documentaries and educational events

The documentaries, once realized, will become a very important teaching tool, as will be specifically designed for teachers, and may also have the shape of a cartoon or animation, particularly effective vehicle for communicating with the younger ones.

A particularly important educational initiative will draw on the experience of MiniDarwin, a project of SissaMedialab which consists of a series of "expeditions" where scientists and boys working together to explore, discover and develop a personal interpretation of the environment and of the observed phenomena. As part of the project, similar experiences declined to marine and coastal area of Emilia-Romagna will be able to replicate, also using valuable resources such as Daphne Oceanographic Structure, universities and research centers of the region.

- Preparation of a proposal for the creation of a TV format

Similarly the third last result, the proposal will be formulated on the basis of information gathered from LepidaSpA and Lepida TV.

**Responsible for implementation**

Emilia-Romagna Region

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
Mr. Emanuele Cimatti	Regione Emilia-Romagna Servizio Tutela e Risanamento Risorsa Acqua	051 5276847	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>

**Estimated Budget (€)**

Individual Activity	MELS	Region	MAP	TOTAL
Education and Communication to sustainability	€9.333	€14.000	X	€23.333

Activities	2014	2015	2016

1. Drafting of a report following a thorough Stakeholder Analysis												
2. Preparation of a strategy for updating and management of web-based communication												
3. Preparation of a proposal for the creation of a Web Journal emailed and downloaded from the site that can keep informed the stakeholders												
4. Promotion and organisation of dissemination events, conferences and seminars												
5. Preparation of a proposal for the creation of a web streaming TV												
6. Preparation of proposals on the content and structure of documentaries and educational events												
7. Preparation of a proposal for the creation of a TV format												

### 5.2.9 Implementation of specific activities aiming to the sustainable use of beaches and the protection of coastal zones (Sardinia)

#### Background

The activity proposed by the regional Agency is related to the needs of local governments to improve their planning, enhancement and coastal landscape management tools.

The lack of regulation related to the sustainable use of coastal areas generate improper and irresponsible uses that contribute to the degradation of the environment and especially the beach. The project fills this gap by addressing the issue of protection and reconstruction of sandy coastline through:

- the development of an overall management strategy for the resources' use;
- the support of low-impact actions;
- actions that indirectly affect the system, i.e. reducing the effects of human pressure;
- the activation of local governance, participatory processes and good practice.

This activity implements an administrative procedure started in 2010, through a tender notice addressed to select proposals for integrated management strategies that best achieve

the objectives of preserving the integrity and requalification of natural resources and environmental systems of the beach. The notice was addressed to the 22 coastal municipalities and local authorities of the area CAMP, and have been selected the 10 best projects submitted. The Agency, with the funds available is financing the leading seven projects of the merit rankings, and successively, the Agency will scrolls the rankings, and will be funded the other three projects.

### Objectives of the activity

The general objective is the protection and restoration of structural and functional natural environmental resources (sandy beaches) which are at risk or already degraded.

The specific objectives are:

- operationally develop the concepts of relocation and reduction of anthropogenic load;
- activate, through the beach planning and management, a new and balanced distribution of functions and use of space;
- introduce physical elements for the protection and rehabilitation of environmental components;
- implement accessibility systems consciously designed and access regulation based on carrying capacity;
- increase the level of participation and environmental responsibility of operators and users of the beaches to encourage sustainable behaviour;
- local municipality capacity building on integrated coastal zone management and beach ecosystems protection.

All projects are accompanied by monitoring activities to verify whether the actual operation of the works that the effectiveness of the strategies implemented.

The best projects selected by the Agency are listed in the tables:

PROJECT	CRITICALITY	PROJECT WORKS
<b>San Vero Milis</b> Re-organisation plan, naturalization and sustainable use of the littoral of San VeroMilis. First batch of intervention.	- Presence of traffic and parking in the backshore; - overburden of carrying capacity.	- Removal of the asphalt road to a first stretch of about 150 m – car traffic forbidden along the backshore; - identification of beach accesses across sand dunes; - delimitation of parking; - regeneration and naturalization of sand dunes, and demolition of an artificial embankment in the lagoon.
<b>Unione di Comuni Metalla e il Mare</b> “Clean beach Project”	- Heavy impact of cleaning methods of the beach such as weighty, vehicles with consequent loss of sand;	- Realization of parking areas to forbidden the transit over protected habitat;

	<ul style="list-style-type: none"> <li>- deterioration of sand dunes;</li> <li>- anthropization, blowout, anthropic openings trails, flattened areas.</li> </ul>	<ul style="list-style-type: none"> <li>- identification of beach accesses across sand dunes, construction of wood footpath;</li> <li>- arrangement of 20 bins for recycling;</li> <li>- purchase of beach-teach marina to cleaning the beaches with a sustainable method.</li> </ul>
<p><b>Trinità' Agultuand Vignola</b> Plan for the protection and regeneration of the coast system of LiFeruli</p>	<ul style="list-style-type: none"> <li>- Parking area unsuited to carrying capacity of the beach;</li> <li>- presence of indiscriminate trampling of dune;</li> <li>- lack of public toilets and showers;</li> <li>- deficiency in the management of tourist users and lack of awareness activities;</li> <li>- lack of ecological stations for the collection of waste.</li> </ul>	<ul style="list-style-type: none"> <li>- Removable wood footpath to connect the beach with the parking;</li> <li>- planting of species for the foot dune consolidation and re-naturalization of the site;</li> <li>- delimitation of parking; activation of awareness campaign, brochures, signage and implementation of an information point.</li> </ul>
<p><b>Arbus</b> Preservation and reconstitution of natural functional of the environmental integrity resources of sandy coasts at risk of being compromised or degraded</p>	<ul style="list-style-type: none"> <li>- High impact of hard coastal structures;</li> <li>- Lack of control, misuse of the public resources, high risk of loss of biodiversity;</li> <li>- Unregulated flow tourists, heavy presence of motorized vehicles on the dunes creating serious problems to the natural vegetation and animal species in this area;</li> <li>- coastal road from the Marina di Arbus arrives at the mouth of the RiuNaracauli, built without any attention to the naturalness of the area and, in some places, forming an artificial barrier;</li> <li>- deficiency in the management of users and lack awareness activities.</li> </ul>	<ul style="list-style-type: none"> <li>- Construction of removable buildings of a temporary nature and an high degree of reversibility that will host the service of reception and control of the territory;</li> <li>- delimitation of parking areas;</li> <li>- identification of beach accesses, and restriction of vehicular traffic to the shuttles and emergency vehicles;</li> <li>- environmental restoration of sand dunes;</li> <li>- Specific signage for the regulations and the information on the traffic, access, facilities, environmental respect;</li> <li>- activation of the public transport system consists of shuttles, and sustainable alternative transport (bike rental, information, guided tours).</li> </ul>
<p><b>Cabras</b> Implementation of the access and pedestrian routes in the beach of San Giovanni</p>	<ul style="list-style-type: none"> <li>- Denudation of the surface near the roadside, phenomena of soil loss as a cause of instability, even for the non-coherent and concomitant use, vehicular traffic, of the area between the fence and the site of Tharros;</li> <li>- soil loss and acceleration landslide phenomena and instability;</li> <li>- the loss of plant associations and single species (including some of</li> </ul>	<ul style="list-style-type: none"> <li>- Construction of wooden walkways, on the natural surface of the existing entrances;</li> <li>- Drainage upstream;</li> <li>- Re-naturation works in the sections where you should not pass more;</li> <li>- Information signage with descriptions and information necessary for the intelligent use</li> </ul>

	<p>conservation and scientific interest;</p> <ul style="list-style-type: none"> <li>- loss and fragmentation of habitats and loss of species (plants and animals);</li> <li>- entrances to the beach that doesn't follow the principle of prevention of environmental damage;</li> <li>- loss of coastal scenery and landscape plants.</li> </ul>	<p>of the ecological areas;</p> <ul style="list-style-type: none"> <li>- use of engineering techniques and materials suitable for use in wet environments and resistant to adverse weather conditions.</li> </ul>
<p><b>Alghero</b> Environmental requalification of sand dunes and beaches</p>	<ul style="list-style-type: none"> <li>- Cleaning of the shoreline with high impact methods such as heavy vehicles with consequent impoverishment of the beach;</li> <li>- dune degradation: anthropization, blowout, anthropic openings, trails, flattened areas;</li> <li>- beach pollution: presence of anthropic pollution (waste washed ashore by storm surges) and occasional accumulation of dead jellyfish beached.</li> </ul>	<ul style="list-style-type: none"> <li>- Sustainable management of <i>Posidonia Oceanica</i> beached (summer harvest/storage/separation);</li> <li>- repair of the dune cordon and materialization of the backshore;</li> <li>- information and awareness activities aimed at a conscious use of the sites, through panels, educational signs, picnic areas and trails.</li> </ul>
<p><b>Sorso</b> Preservation and reconstitution of the sandy shoreline of Municipality of Sorso</p>	<ul style="list-style-type: none"> <li>- Increasing human pressure;</li> <li>- indiscriminate passage on the dune which has changed the longitudinal profile, creating an imbalance of the physical system and vegetation;</li> <li>- trampling of flora and introduction of alien species to the detriment of native species.</li> </ul>	<ul style="list-style-type: none"> <li>- Rest areas and functional furniture to encourage the use of public transport;</li> <li>- entrances to the beach and primary services for the use of the beach;</li> <li>- windbreak for the restoration of the dune system and measures of environmental engineering aimed at the reintroduction of the species <i>psammophilous</i> pioneer of the dunes, and the removal of exotic species;</li> <li>panels for the interpretation of the environment and for the awareness.</li> </ul>
<p><b>Oristano</b> Sand dune, a commonweal</p>	<ul style="list-style-type: none"> <li>- Presence of pedestrian paths on the dune and on the backshore;</li> <li>- deficiency in the management of users and lack awareness activities;</li> <li>- lack of ecological stations for the collection of waste.</li> </ul>	<ul style="list-style-type: none"> <li>- Construction of fences (sand-fencing) and seats with "dissuader";</li> <li>- construction of a parking area for vehicles</li> <li>- construction of a railway Bikes (Bike-Sharing);</li> <li>- bins for recycling;</li> <li>- construction of walkways on the platform at strategic points of the coast;</li> <li>- identification of forced pathways for access to the beach along dunes through the use of existing tracks;</li> <li>- proper signage and information panels;</li> <li>- identify paths to be used for</li> </ul>

		<p>sporting and leisure activities; - restoration of areas crushed because of vehicular traffic; - dismantling of concrete platforms of the ex shed; construction of a lifeguard tower for public assistance.</p>
<p><b>Santa Giusta</b> Littoral reconstitution and accessibility requalification within the SIC– SassuCirras</p>	<p>- Traffic and car parking close to the beach, which produces noise, heat, exhaust fumes, release oils etc.; indiscriminate passage on the dune which has changed the longitudinal profile, creating an imbalance of the physical system and vegetation.</p>	<p>The management activities proposed by the city of Santa Giusta are part of the management plan of the SIC "Sassu-Cirras - ITB032219", approved by the Sardinia Region. Actions: - creation of a parking area for motor vehicles; - creation of footpaths and footbridges; - construction of windbreak shields; - restore the dune system.</p>
<p><b>Narbolia</b> Accessibility requalification in the coast of Is Arenas</p>	<p>- Presence of pedestrian paths on the dune and on the backshore; - lack of public toilets and showers; - deficiency in the management of users and lack awareness activities; - lack of ecological stations for the collection of waste.</p>	<p>- Construction of parking areas for people with disabilities, for bicycles and motorcycles, buses, motor homes and cars; - Specific signage for the regulations and the information on the traffic, access, facilities, environmental respect; - placement of ecological islands for the collection of waste; - renovation of the wooden walkway for the access to the beach and placement of ramps for the disabled; - placement of walkways removable to allow the disabled to use the new services and the access to the sea; - Modular and removable wooden "Kiosk" with refreshment area and restrooms; environmental engineering works for the containment of a portion of the dune close to the gangway.</p>

The activity consists in the selection, by public notice, of the best project proposals written by municipalities falling in the CAMP area.

The articles of the **ICZM Protocol** related to this individual activity are:

Art. 8 (3, e): restricting or, where necessary, prohibiting the movement and parking of land vehicles, as well as the movement and anchoring of marine vessels, in fragile natural areas on land or at sea, including beaches and dunes;

Art.9 (1, b, f): ensure that the various economic activities minimize the use of natural resources and take into account the needs of future generations; promote codes of good practice among public authorities, economic actors and non-governmental organisations;

Art.9 (2,d): (...) to encourage sustainable coastal tourism that preserves coastal ecosystems, natural resources, cultural heritage and landscapes;

Art.10 (2): the Parties, recognizing the need to protect marine areas hosting habitats and species of high conservation value, irrespective of their classification as protected areas,(...);

Art.10 (4): (..) preserve and, where possible, rehabilitate in a sustainable manner dunes and bars;

Art.11 (1): (..) ensure the protection of coastal landscapes through legislation, planning and management;

Art.12 (1,a): promote environmentally friendly activities in such areas and take special measures to ensure the participation of the inhabitants in the protection of coastal ecosystems based on their local customs and knowledge;

Art.14 (1): (...) ensure the appropriate involvement in the phases of the formulation and implementation of coastal and marine strategies, plans and programmes or projects, as well as the issuing of the various authorizations, of the various stakeholders, including: the territorial communities and public entities concerned, economic operators, non-governmental organisations, social actors, the public concerned;

Art. 23, (2): (..) in respect of existing activities and structures, the Parties should adopt measures to minimize their effects on coastal erosion.

## **Outputs**

The expected outputs of the activities are:

- dune systems consolidated and protected from erosion;
- increased resilience of the physical beach-dune systems;
- increased awareness of local communities and institutions on specificity and importance of coastal systems;
- reduction of threats and problems that cause erosion of sandy coasts (through the rehabilitation of natural ecosystems);
- shared responsibilities and duties between the regional administrations, local authorities and private operators.

The Agency will take the arrangements for the involvement of the institutions and stakeholders. The activity promotes coastal management strategies that should inspire local governance, participation, collective awareness and good practice. The collaboration with local

beneficiaries will be implemented by the organisation of public meetings for the sharing of best practices developed in the whole area of integrated management CAMP.

### Responsible for implementation

*Agenzia Conservatoria delle Coste*, Department of Environment Defence of the Autonomous Region of Sardinia, 10 municipalities of CAMP Sardinia areas, stakeholders.

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
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### Time schedule

Activities	2014			2015				2016			
Preliminary activity and redefinition of preliminary projects											
Signature of the agreements with the municipalities and obligation and start-up of investments by the beneficiaries											
Deadline for at least 20% of investments											
Finalization of investments											
Submission of financial reporting by the beneficiaries											
Collection of technical documentation relating to each pilot project and preparation of a final document											
Conference for the presentation of results and the strategy paper											

### Estimated Budget (€):

Individual Activity	MELS	Regions	MAP	TOTAL
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<b>Implementation of specific activities aiming to the sustainable use of beaches and the protection of coastal</b>	<b>€360.000</b>	<b>€540.000</b>		<b>€900.000</b>
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Amount already committed to fund 7 projects underway € 645.407,22. Amount Funding for the implementation of the 3 projects to be undertaken: € 90.000,00 Oristano Municipality project; € 90.000 Santa Giusta Municipality project; € 89.520,00 Narbolia Municipality project.

### **5.2.10 Enhancement of historic-architectural heritage for the creation of the first eco-hostel in the coastal area for sustainable local development (Buggeru site)**

#### **Background**

The territory of Buggeru, with its natural areas and industrial archaeology, is part of the environmental and cultural system of Sulcis-Iglesiente, and nowadays is affected by strong depopulation phenomenon, a progressively aging population, a high rate of unemployment, especially youth unemployment and a low average level of education. The project regards the construction of the first eco-hostel in Sardinia and takes into account the structural weakness of the local context and the opportunities to use social tourism as a driving force for the development of local resources. The project is characterized by technological and design choices in order to reach zero impact, management strategies in order to maximize the local economic benefits and to sensitize customers on responsible tourism. The initiative is part of a broader strategy for the creation of a Network of Sardinian Eco-Hostels, through the recovery, sustainable management and networking of certain properties located in areas of coastal preservation of particular landscape and environmental.

#### **Objectives of the activity**

The general objective is to carry out the restoration and reuse of historic public-owned estates, including the need to build the requirements for environmental excellence of tourist facilities.

The specific objectives are:

- to apply, in the conversion of existing structures, eco-sustainability criteria in order to achieve a reduced environmental impact;
- to make tourist accommodations a site to actively fulfil purposes of conservation, research and dissemination of culture and coastal marine environment;
- to promote a model of cultural and environmental tourism, expanding the range of experiences already offered by the National Park To build the bases for a seasonal adjustment of touristic use;
- to design activities and tourist services that increase the level of the community's interaction with the protection of the coastal landscape and environmental components, in order to build the first relational system which knows and protects their value;
- to start an innovative institutional experience as a laboratory for sustainable tourism activities; to contribute to the operational concept (currently only law) of "coastal conservation area" as an operational area of the Conservatoria delle Coste;

- to mobilize private operators in the field of tourist accommodation and services, through public call for proposals, for the assignment of real estates in order to find solutions to environmental sustainability, as well as the conservation of cultural heritage sites and historical memory.

The executive phases of the activity are:

- Design and implement the project of the conversion of the ancient “mine’s hospital” in an Eco-Hostel;
- design and implementation of a training course for unemployed youth of the territory of Buggerru aimed at managing the structure of the Eco-Hostel;
- recruitment of young people attending the course through a rigorous selection process downstream of the course of one year.

The articles of the **ICZM Protocol** related to this individual activity are:

- Art.13 (1): The Parties shall adopt, individually or collectively, all appropriate measures to preserve and protect the cultural, in particular archaeological and historical, heritage of coastal zones, including the underwater cultural heritage, in conformity with the applicable national and international instruments
- Art.13 (2): (...) ensure that the preservation in situ of the cultural heritage of coastal zones is considered as the first option before any intervention directed at this heritage.

#### Participation process

The Agency will take the arrangements for the involvement of the institutions and stakeholders.

A cooperation with the International Network of Youth Hostels, AIG, was started in order to allow the inclusion of the Eco-Hostel of Buggerru into the network. It is expected the involvement of local authorities and institutions for the realization of the regional network of Eco-Hostel in agreement with the standards of sustainability and energy efficiency, with the aim of promoting cultural and social tourism in accommodation facilities with high standard and with specific attention to the needs of young people, school groups and disabled people.

The following method will allow to achieve the involvement of local authorities and institutions:

- Identification of existing structures in the regional territory;
- Sharing of best practices developed with the Buggerru Eco-hostel;
- Support structures for participants in the creation of the regional network of Eco-hostels.

#### Outputs

The expected outputs of the project are:

- Establishment of a tourism and eco-friendly accommodation in Sardinia west coastal areas as a reference point for environmental education and awareness;
- diversification and qualification of the tourist and accommodation;
- green local jobs increased ;
- strengthening of relation system among local actors involved in the processes of tourism development;
- start of profitable forms of public-private collaboration in the management of coastal resources.

### Responsible for implementation

*Agenzia Conservatoria delle Coste, Municipality of Buggerru, ATIlfrasS.p.a.*

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
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### Time schedule

Activities	2014				2015				2016				
Construction phase													
Opening													
Design and implementation training course for local unemployed youth													

### Estimated Budget (€):

Individual Activity	MELS	Regions	MAP	TOTAL
<b>Enhancement of architectural heritage for the creation of the first eco-hostel in the coastal area for sustainable local development (Buggerru site)</b>		€2.400.000		€2.400.000

## 5.2.11 GIRA – Integrated Fishing Resources Management

### Background

The GIRA project aims to define a model for integrated fishery resources management through an integrated system of environmental protection measures and support of traditional productive activities in order to diversify production and to consolidate and amplify the results and the effects of some existing initiatives at local level.

The Agency has started GIRA since 2010 because it consists of several activities that need at least 5 years to be achieved. During the first phase, the preliminary activities concerning the existing data collection were developed, as well as the review of the literature, investigations on the territories, meetings with local authorities and fishermen, organisation of the sampling plan, the research of areas for the implementation of the actions. After these activities, Agriculture Department decree was signed (DEC n. 669/Dec.A./18 of 01.04.2011), establishing the following three study areas:

- two areas for the experimental management, one for octopus (*Octopus vulgaris*) in San Vero Milisand one for the common sea urchin (*Paracentrotus lividus*) in Buggerru;
- an experimental restocking area for the lobster (*Homarus gammarus*) in Castelsardo.

The first part of these projects is expected to end in 2014. The end of those pilot actions corresponds with the starting of the second phase of GIRA that will focus on the implementation action only for the sea urchin, due to its economical importance for fishing activities. In fact, in the past few years there has been a notable increase in production for sea urchin fisheries, due to two concomitant causes: a high demand from the tourism catering market and an increase in the fishing effort (in the number of licensed fishermen) following the re-allocation of fishermen from other depleted small-scale fisheries. Despite this expansion, regulations have remained relatively unvaried, thus causing early signs of overexploitation (Pais et al., 2007) and depletion of commercial sizes (Cau et al., unpublished data, 2007).

The main goal achieved during the first phase has been the test and validation of experimental models for the stock assessment of the sea urchin stocks. Such activities were developed with the active cooperation of the local sea urchin fishery, which demonstrate a particular interest into the conservation of the resource in their fishery area.

The second phase would be addressed to the application of the model to the sea urchin harvesting, which is based on fishing by “scientific quota”. Before and during the project the local municipalities and the fishermen have been actively involved in all the activities. The experimental management of *Paracentrotus lividus* is expected to end in 2016.

### Objectives of the activity

The overall objective of GIRA project is to define a model for a fishery resources management through an integrated system of environmental protection and support of traditional productive activities.

During the first part, the issues concerning the three species have been analyzed and suggestions for their management proposed. The second part will focus on sea urchin management: in particular the Agency will identify a partner that will test the suggestion

proposed with the active involvement of fishermen and develop communication and awareness actions for citizens and marine control authorities.

Specific objectives are:

First part:

- to preserve and enhance marine biodiversity;
- to limit the phenomenon of over-exploitation of specific fishery resources;
- to involve the local municipalities and the fishermen in the conservation of marine resources;
- to develop tools for a sustainable exploitation of the studied species;
- transfer a scientific know-how on the biology and ecology of invertebrates/fish;
- to promote forms of voluntary agreement to define and regulate common fishing practice-oriented to responsible fishing practices and integrative activities of the income;
- to organize environmental educational workshops with the schools of the municipalities involved.

Second part:

- to identify a partner to develop the second part of the project;
- to support the sale of quality products through the local tourism system;
- to create the brand "Zero Km flavours" that will be used after the end of the project;
- to achieve an activity of information, communication and rising awareness to make the citizens more responsible in the consume of sea urchin;
- to involve the marine control authorities into the project activities;
- to implement the results obtained in the first phase of the project;
- to relate the activities with other active projects on the same topics.

### **Outputs**

- Enhanced marine biodiversity;
- Use of alternative methods for the protection and increased productivity of marine species;
- Raised awareness of industry professionals on issues related to environmental protection and eco-sustainable fishing activities;
- A more diverse and sustainable local tourism products;
- Economic return associated with the sustainable exploitation of resources;
- Integrate the fishing industry with the eco-tourism sector;
- Develop a specific management plan for the exploitation of sea urchin stock in the experimental area.

The articles of the **ICZM Protocol** related to this individual activity are:

- Article 5 Objectives of integrated coastal zone management: (a) facilitate, through the rational planning of activities, the sustainable development of coastal zones by ensuring that the environment and landscapes are taken into account in harmony with economic, social and cultural development; (c) ensure the sustainable use of natural resources, particularly with regard to water use;
- Article 9 Economic activities, 1 (a) accord specific attention to economic activities that require immediate proximity to the sea; (b) ensure that the various economic activities minimize the use of natural resources and take into account the needs of future generations; (d) ensure that the coastal and maritime economy is adapted to the fragile nature of coastal zones and that resources of the sea are protected from pollution; (f) promote codes of good practice among public authorities, economic actors and non-governmental organisations. 2 (b) Fishing, (i) to take into account the need to protect fishing areas in development projects; (ii) to ensure that fishing practices are compatible with sustainable use of natural marine resources;
- Article 10 Specific coastal ecosystems, 2 Marine habitats (a) adopt measures to ensure the protection and conservation, through legislation, planning and management of marine and coastal areas, in particular of those hosting habitats and species of high conservation value;
- Article 14 Participation, 1. With a view to ensuring efficient governance throughout the process of the integrated management of coastal zones, the Parties shall take the necessary measures to ensure the appropriate involvement in the phases of the formulation and implementation of coastal and marine strategies, plans and programmes or projects, as well as the issuing of the various authorizations, of the various stakeholders, including:
  - the territorial communities and public entities concerned;
  - economic operators;
  - non-governmental organisations;
  - social actors;
  - the public concerned.

Such participation shall involve *inter alia* consultative bodies, inquiries or public hearings, and may extend to partnerships. With a view to ensuring such participation, the Parties shall provide information in an adequate, timely and effective manner. Mediation or conciliation procedures and a right of administrative or legal recourse should be available to any stakeholder challenging decisions, acts or omissions, subject to the participation provisions established by the Parties with respect to plans, programmes or projects concerning the coastal zone.

### **Participation process**

The Agency will take the arrangements for the involvement of the institutions and stakeholders.

The agency plans to maintain and improve the virtuous involvement process of institutions and economic operators already started, through activities shared and developed with the Fisheries Service of the Regional Agriculture Department, fishermen and research centers. Specific technical meetings will be organized, drawn up specific agreements with the fishermen and the research centers and finally documents for good management practices will be developed.

### Responsible for implementation

*Agenzia Conservatoria delle Coste*, scientific partners, Department of Agriculture and agro-pastoral reform Sardinia Fishing and aquaculture service of Sardinia Region, Fishermen, Municipalities involved, schools.

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### Time schedule

Activities	2014			2015				2016				
Development of the First phase	■	■										
Public selection for the new partner for the implementation of the second phase		■	■									
Stock assessment in <i>Capo Pecora</i> area				■			■					
Quota calculation for the area				■	■		■	■				
Quota harvesting				■	■	■	■	■	■			
Activities of information and communication with citizen and fishermen				■	■	■	■	■	■	■		
Competition for schools				■	■	■	■	■	■			
Final Workshop											■	

### Estimated Budget (€):

Individual Activity	MELS	Regions	MAP	TOTAL
<b>GIRA - Integrated Fishing Resources Management</b>	<b>€160.000</b>	<b>€240.000</b>		<b>€400.000</b>



### **5.2.12 Asinara National Park and Pianosa Island (Tuscany Archipelago National Park) tourism carrying capacity assessment**

The Asinara Island is one of the most protected European areas: it is a National Park; belongs to the Nature 2000 network as its territory is defined as a Special Areas of Conservation (SAC) and Special Protection Areas (SPAs); the surrounding sea is a Marine Protected Area.

Historically, the island was inhabited by shepherds and farmers until 1885, when it was expropriated for the establishment of a penal agriculture colony and a health quarantine station. Across the island were built several prisons, each of which was characterized by small jails, barracks, housing for guards and stables for animals. Since 1971, the prison of Fornelli was transformed into a maximum security prison until 1997, when all the prisons were closed and the island became a National Park.

The island territory is under strict regulations put in place to guarantee the conservation of the marine and land habitats. The main authorities of Asinara Island are three: the National Park authority, the Sardinian regional government and the municipality of Porto Torres.

As for the Island of Pianosa, with all Tuscan main islands and some smaller islets, is part of the Tuscan Archipelago National Park, the largest marine park in Europe. Pianosa is a 10 square km island with 18km of coastline and it is characterized by flat terrain.

Since 1858, the Island was used as an Agricultural Penal Colony, its territory was divided in agriculture areas called "poderi" that soon became small community of prisoners. From the 1884 to 1965, the island hosted many prisoners affected by tuberculosis and some buildings were destined to the different phases of medical treatment. During the late 70s, as it happened in the Asinara Island, one of these structures was transformed in a maximum security prison. The Tuscan Archipelago National Park was established in 1988, but the Island of Pianosa joined the Park only in 1996 with the establishment of the Park Authority.

First Agricultural Penal Colony and maximum security prison, then National Parks: the similarities between the two islands are evident in the history as well as in strengths and weaknesses. Both islands have an high and complex level of ecosystem but the abandonment of agriculture and breeding, after the closure of the prisons, generated changes in biodiversity that are now hardly controlled by the Park authority. Sustainable tourism could be a great opportunity for the area, but tourists' presence is basically concentrated during summer season and the tourist experience is mostly one day excursion due to the low accommodation capacity. In the past years a CCA was conducted for both islands, but each assessment was focused only on one criticality. The CCA of Asinara Island is concentrated on the historical heritage and its accommodation capacity; while the Pianosa ones focuses on concentration of CO<sub>2</sub> produced by tourism activities.

#### **Objectives of the activity**

This activity will start with the analysis of the environmental conditions of these areas, the social context and the existing tourism pressure, then several management strategies will be proposed, according to law restrictions, for the reactivation of both islands and the sustainable use of the existing buildings' heritage. The project aims to support decision makers and local government on developing a tourism model, on each island, that, based on the consideration of environmental carrying capacity, can pursue the best use and management of resources.

The carrying capacity for a tourism destination cannot be a fixed number but it can be altered by different environmental, social and economic factors. The future scenario must consider all these factors and, in the same time, the opportunities that can be generated by new activities compatible with the institutional aims of the National Park. The accommodation capacity and the possible use of the existing building heritage as accommodation structures must be tackled within the existing infrastructure (road network, water, electricity, sewage), as well as the services supporting the Park.

The *Conservatoria delle Coste* will select, by public call, a consultant agency for the Carrying Capacity Assessment. The analysis will be based on a full knowledge of the system of the destination intended as its capacities to sustain and increase tourism development and have to value different possible scenarios.

The project will develop in three phases:

- A descriptive phase: focused on the knowledge of studied territorial system.
- An evaluation phase: based on the analysis of the possible modes of management and acceptable levels of impact for the destination.
- A strategic phase: concentrated on defining the optimum capacity and formulating a sustainable tourism development strategy.

The specific activities of the project are:

- gathering different types of data;
- building a framework of knowledge based on a set of relevant indicators that allow defining the initial scenario;
- identifying sustainability thresholds in the use of environmental, socio-economic and settlement infrastructure resource (the process must lead to the identification of minimum and maximum threshold values for each indicator);
- determining the conditions to estimate the cumulative effects generated by such scenarios;
- defining sustainable criteria for intervention in the planning / design;
- building the criteria for the evaluation of programs and projects in all their phases and monitoring the effectiveness of actions based on their enhancement effects on the environment, active participation and encouragement of a stable collaborative basis among all actors, institutional and private, involved in the management of the two Islands, in order to share knowledge and find management tools.

The articles of the **ICZM Protocol** related to this individual activity are:

Art.12 (1,b): (..) take into account the specific characteristics of the island environment and the necessity to ensure interaction among islands in national coastal strategies, plans and programmes and management instruments, particularly in the fields of transport, tourism, fishing, waste and water.

## Outputs

The expected output of the CCA is the development and implementation of a decision support process for tourism development according to the carrying capacity of the islands.

## Participation process

The Agency will take the arrangements for the involvement of the institutions and stakeholders.

The coordination of this action will start by establishing a **technical committee** from all the institutions involved in the management of the two pilot areas. (Park Authority, local, regional and national governments, local stakeholders).

The process of estimating tourism carrying capacity consists of five steps, namely:

- 1) Analysis of tourism and natural resources management;
- 2) Analysis of current tourism scenario through sustainable tourism indicators and related thresholds;
- 3) Definition of alternative scenarios regarding tourism development of the area (e.g. 2050);
- 4) Comparative analysis of alternative scenarios;
- 5) Determination of the sustainable tourism scenario and the related carrying capacity.

Each of these steps is important and constitutes an interrelated and sequential whole.

The committee will be responsible for all these activities and will organize a technical meeting every six months.

A public event will be organized in order to present the activities program to the local community and to all involved stakeholders.

Guide parameters include data regarding: - residents; - tourism flows; - receptive structures (beds). Residents, tourism presences (intended as number of nights of the tourists in receptive structures) and number of beds represent guide parameters. From their variations depend variations of the other indicators and consequently the differences between a scenario and another. Data refer to the tourism season and month of August. Socio-economic parameters include data regarding:

- tourism intensity;
- tourism density;
- economic data of the sector (plus value, jobs, etc.).

It is necessary to precise that in certain cases it was not possible to evaluate some socio-economic parameters because there are not specific references studies. For that reason their variation is only hypothetical and indicated with symbols. Regarding the social aspects, the parameters have been chosen in order to describe in the best way the connections between tourism presence and local population, highlighting the situations that could cause stress or non satisfaction. The tourism intensity indicates the rate between tourists and residents during the month of August, while tourism density, during the same month, calculates the average area of beach for each tourist.

Environmental parameters include data regarding:

- water use;
- waste production;
- energy;
- soil use.

Even regarding this group of parameters, it has not been possible to collect all indicators data, replaced by estimations expressed by symbols, also useful to define a tendency line.

In order to coordinate the action, the establishment of a technical committee between the institutions directly involved in the management of two protected islands (Park Authority, municipalities, regions, Ministry of Justice, economic operators) is expected.

### Responsible for implementation

*Agenzia della Conservatoria delle Coste*, National Park of Asinara Island, Environment Ministry, Department of Environment Defence, Department of *Enti Locali, Finanze e Urbanistica, Corpoforestale di vigilanza ambientale* and *Ente Foreste* of Sardinia Region, Municipalities of Porto Torres, tourism operators, University of Sassari, Tuscany region.

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### Time schedule

Activities	2014			2015			2016		
Public call to select a consultant company for the CCA									
- Data gathering and analysis of the initial scenario									
- Community participation: stakeholders' involvement in the processes									
- Definition of the thresholds for each component of the destination system									
- Definition of a baseline scenario and elaboration of alternative									

scenarios												
- Evaluation of the different scenarios' impacts on the destination												
- Selection of the most sustainable scenario related to the optimum carrying capacity												
Public presentation of the CCA												

### Estimated Budget (€):

Individual Activity	MELS	Regions	MAP	TOTAL
<b>Asinara National Park and Pianosa island tourism Carrying Capacity Assessment</b>	<b>€60.000</b>	<b>€90.000</b>	<b>X)</b>	<b>€150.000</b>

### 5.2.13 Sardinian Center for coastal monitoring and assessment

#### Background

The conceptual model behind the activation of the Sardinian Center for Coastal Monitoring and Assessment recognises the coordination role of the Conservatoria delle Coste, between all local authorities and regional stakeholders, on the integrated management of coastal zones. The contribution of the Conservatoria delle Coste should therefore address the selection of relevant information fields (thematic dataset) as well as the acquisition, processing and production of new data.

The final aim is to assess the implementation state of sustainable development policies and, at the same time, monitor the status and evolution of integrated coastal management processes in the regional context. Using a selected set of ICZM indicators, the Center will be able to measure, analyse and process environmental, social and economic data, in order to understand the current scenario and value the effects and impacts produced by different initiatives and territorial policies.

The technological platform of the Sardinian Center for Coastal Monitoring will be designed and integrated into the Regional Environmental Information System, called SIRA. This system allows to integrate, in a single database, all environmental information and data managed separately by each institution and share them on a regional network.

The integration with the SIRA database will improve the access and management of all information regarding coastal phenomena, and will increase the possibilities to disseminate the results to various government levels and to various categories of private entities, gaining in efficiency and time. In fact, users will be able to select data from other thematic sections and

combine them through a plurality of indicators, use maps, graphs, tables, reports and other useful tools in order to understand the processes of coastal evolution.

The database of the Sardinian Center for coastal monitoring and assessment has to be integrated with the following SIRA modules:

- SIRA Catasti: for the analysis of all data registers that can belong to the same or a different domain.
- SIRA H2CUBE: for the support of the processing phase.
- Report Module: for the preparation of reports.
- Module plotter: for processing and producing cartographic reports and thematic maps.

### **Objectives of the activity**

The activity aims to prepare an information system that will be functional to the observation of phenomena in the marine area and specifically in the CAMP areas, and simultaneously, will help to monitor the implementation of all the activities on the coast. In order to guarantee an integrated approach of all assessments, the technical structure of the Center has to be a multidisciplinary team of professionals with expertise in ICZM planning, geology, geomorphology, marine biology, GIS and web-GIS, sociology, economics, tourism.

The specific objectives of the project are:

- to describe the environmental, socio-economic state of the regional coastline and the interactions between coastal activities;
- to act as a contact point for Integrated Coastal Zone Management for the various levels of government and other key players of the coast;
- to stipulate agreements with the different authorities involved in coastal monitoring activities in order to collect all necessary data.
- to create a multidisciplinary team of experts on ICZM;
- to collect and elaborate all information and data of coastal phenomena by using a single database and share analysis results, on a regional network, to all competent authorities;
- to foster cooperation between the policy-makers' levels and sectors via consultative meetings and by actively encouraging cooperation;
- to monitor ICZM policies on Mediterranean coasts by participating to forums or other consultative platforms on coastal zone management;
- to promote knowledge transfer and the long-term use of the project outputs.

As part of its activities, the Center will describe the environmental status of the regional coastline focusing on the protection and valorisation of natural resources and on the socio-economic development. The Agency will publish a periodical report of the state of the coasts, as the outcome of the analysis and evaluation carried out by the Center and it will show:

- current and past processes that took place in the coastal area;

- pro-active actions, territorial policies, corrective actions, according to the international Protocol on ICZM.

This report must be addressed firstly to Public Administrations, in order to promote strategies and policies that can achieve a sustainable use of natural resources. In second instance, providing also a non-technical section, the report can raise the awareness of the public and local communities on coastal issues.

The articles of the **ICZM Protocol** related to this individual activity are:

Art. 16 (1): The Parties shall use and strengthen existing appropriate mechanisms for monitoring and observation, or create new ones if necessary. They shall also prepare and regularly update national inventories of coastal zones which should cover, to the extent possible, information on resources and activities, as well as on institutions, legislation and planning that may influence coastal zones.

Art. 16 (4): The Parties shall take all necessary means to ensure public access to the information derived from monitoring and observation mechanisms and networks.

### **Participation process**

The Agency will take the arrangements for the involvement of the institutions and stakeholders.

The Centre will operate within the Regional Environmental Information System (SIRA), detecting, collecting and processing data related to changes affecting the coastal areas. SIRA is also the regional centre of the National Environmental Information System (Sina) and is organized in a logical network (Sinanet) that includes the functional nodes of the national Institute for the Protection and Environmental Research (Ispra) and Regional Focal Points (PFR), which represent the regional centers of the System and provide the basis for the regional territorial level.

The Department of Environmental Defense of Sardinia Region through SIRA has set itself the goal of putting environmental information as a resource, both at the different levels of government and for the different categories of private entities that will be able to download all the available data.

### **Outputs**

- Competences learnt at different government levels, regarding the acquisition, observation and monitoring of the processes influencing the coastal zone identified.
- Tools and procedures that govern the flow and exchange of data for the coastal zones.
- List of stakeholders involved in the coastal zone observation network.
- A technological platform into the Regional Environmental Information System of Sardinia.
- Annual report of Sardinian coasts status.

### **Responsible for implementation**

*Agenzia Conservatoria delle Coste*, National Park of Asinara Island, Environment Ministry, Department of Environment Defence, Department of Enti Locali, Finanze e Urbanistica and

Corpoforestale di vigilanza ambientale of Sardinia Region, Municipality of Porto Torres, tourism operators, University of Sassari.

Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
Mr. Paolo Vargiu Ms. Manuela Puddu	Sardinia Region- Agenzia Conservatoria delle Coste	070 6065751 070 6065492	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a> <a href="mailto:mpuddu.coste@gmail.com">mpuddu.coste@gmail.com</a>

#### Estimated Budget (€):

Individual Activity	MELS	Regions	MAP	TOTAL
<b>Sardinian center for coastal monitoring and assessment</b>	<b>€51.600</b>	<b>€77.400</b>		<b>€129.000</b>

Activities	2014			2015				2016			
Agreement between regional authorities, AMP and coastal municipalities for data sharing											
Elaboration and launch of a public call for experts											
Collection and elaboration of environmental, social and economic data											
Elaboration of a report on the state of Sardinian coastal zones											
Creation, implementation and updating of a multidisciplinary database and a web-GIS											

#### 5.2.14 Coastal vulnerability assessment tool

##### Background



Sardinia Island, as stated by EEA (ETC/ACC, 2010a), like many parts of the Western Mediterranean coastline, is at risk of flooding and erosion due to rising sea-levels and the increasing frequency and intensity of storm events. Low-lying coasts (e.g. deltas, lagoons, tidelands and some islands) are particularly vulnerable.

On a larger spatial scale, a European review by Moreno and Amelung (2009) has shown that with respect to climate, the Mediterranean is likely to remain Europe's prime region for summer-time beach tourism for at least the next 50 years and that coastal managers in Mediterranean destinations are advised to focus some of their attention on other climate change impacts such as SLR or water availability, and include environmental quality and diversification of activities in their deliberations. In stark contrast, Kundzewicz et al. (2008) suggest that the impacts of climate change on beach holidays in the Mediterranean are likely to be serious and largely adverse due to greater drought and fire risk, more flash floods, higher personal heat stress and more tropical diseases (e.g. malaria).

The southern Mediterranean and its ecosystems are identified as particularly vulnerable to water stress and desertification processes under climate change conditions (Gao and Giorgi, 2008; Berry et al., 2007; Sánchez de Dios et al., 2009). In particular the central and southern portions of the Iberian, Italian, Hellenic and Turkish peninsulas, parts of Southeastern Europe, Corsica, Sardinia and Sicily may become dry and arid (Beniston et al., 2007; Gao and Giorgi, 2008; Metzger et al., 2008).

**Objectives of the activity**

To assess coastal vulnerability to sea-level rise and provide a simple numerical basis for ranking sections of coastline in terms of their potential for change that can be used by managers to identify regions where risks may be relatively high.

Specifically: to review the current status of Coastal Vulnerability Assessment tools and methods; to identify a robust and “easy-to-use” method to be applied in the Mediterranean context and in particular to the local scale of Sardinian coastal areas.

Among the executive phases of the activity, the following ones can be mentioned:

- analysis of existing coastal vulnerability assessment tools;
- selection of the more appropriate tool to Sardinia coastal areas;
- implementation of the tool in at least one of the CAMP areas.

**Outputs**

The expected outputs of the activity are vulnerability maps and adaptation measures for sea-level rise.

**Responsible for implementation**

*Agenzia Conservatoria delle Coste*, Department of environment defense of the Autonomous Region of Sardinia.

Supervisor and/or contact	Organisation or Body	Telephone numbers	e-mail and Skype
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<b>person</b>			
Mr. Paolo Vargiu	Sardinia Region-Agenzia Conservatoria delle Coste	070 6065751	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a>

**Estimated Budget (€):**

Individual Activity	MELS	Regions	MAP	TOTAL
<b>Coastal vulnerability assessment tool</b>	<b>€52.000</b>	<b>€78.000</b>	<b>X</b>	<b>€130.000</b>

Activities	2014				2015				2016			
Analysis of existing coastal vulnerability assessment tools.												
Selection of the more appropriate tool to Sardinia coastal areas												
Implementation of the tool in at least one of the CAMP areas												

**Table with the related articles of Barcelona Convention's Protocols**

Related articles of Barcelona Convention's Protocols							
Individual Activity	ICZM	SPA/BD	Emergency	Dumping	Hazardous wastes	Offshore	LBS
<b>5.2.1 Monitoring the effects of Tuscany beach nourishment activities in the South of Ansedonia</b>	Art 16 - Monitoring and observation mechanisms and networks Art 20 – Land policy Art 8 - Protection and sustainable use of the coastal zone Art 10 Specific coastal ecosystems, para. 2 Marine habitats and 4 Dunes						Art 1 - General provision Art 4 - Protocol application Art 5 - General obligation Art 7 - Common Guidelines, standards and criteria Art 8 - Monitoring Art 9 - Scientific and technical cooperation

<b>5.2.2.</b> <i>Evaluating feasibility and effectiveness of the use of alluvial sediments extracted from the Magra River drainage basin in order to restore eroding beaches in the annexed coastal cell</i>	Art 16 - Monitoring and observation mechanisms and networks Art 20 – Land policy Art 8 - Protection and sustainable use of the coastal zone Art 10 Specific coastal ecosystems						Art 1 - General provision Art 4 - Protocol application Art 5 - General obligation Art 7 - Common Guidelines, standards and criteria Art 8 - Monitoring Art 9 - Scientific and technical cooperation
<b>5.2.3.</b> <i>Protection of the dunes of Lacona (Elba Island)</i>	Art 16 - Monitoring and observation mechanisms and networks Art 20 – Land policy Art 8 - Protection and sustainable use of the coastal zone Art 10 Specific coastal ecosystems, para. 4 Dunes.						Art 1 - General provision Art 4 - Protocol application Art 5 - General obligation Art 7 - Common Guidelines, standards and criteria Art 8 - Monitoring Art 9 - Scientific and technical cooperation
<b>5.2.4.</b> <i>Regulations for the removal of sand and material from marine quarries</i>	x	LI.	LII.	LIII.	LIV.	LV	x
<b>5.2.5.</b> <i>Operational protocol for the reestablishment and consolidation of the dune belts (natural or artificial/reconstructed)</i>	x	x	LVI.	LVII.	LVIII.	LIX	LX.
<b>5.2.6.</b> <i>Conservation of marine and coastal biodiversity with special reference to the conservation of minor species.</i>	x	x	LXI.	LXII.	LXIII.	LX	LXV.
<b>5.2.7.</b> <i>Development and exploitation of new forms of sustainable tourism in protected natural areas</i>	x	x	LXVI.	LXVII.	LXVI	LX	LXX.

<p><b>5.2.8. Education and Communication to sustainability</b></p>	<p>x</p>	<p>LX</p>	<p>LXXII.</p>	<p>LXXIII.</p>	<p>LXXI</p>	<p>LX</p>	<p>LXXVI.</p>
<p><b>5.2.9. Implementation of specific actions aiming to the sustainable use of beaches and the protection of coastal zones</b></p>	<p>Art. 8 (3, e): Restricting or, where necessary, prohibiting the movement and parking of land vehicles, as well as the movement and anchoring of marine vessels, in fragile natural areas on land or at sea, including beaches and dunes; Art. 9 (1, b, f): Ensure that the various economic activities minimize the use of natural resources and take into account the needs of future generations; promote codes of good practice among public authorities, economic actors and non- governmental organizations; Art. 9 (2,d): (...)to encourage sustainable coastal tourism that preserves coastal ecosystems, natural resources, cultural heritage and landscapes; Art.10 (2): The Parties, recognizing the need to protect marine areas hosting habitats and species of high conservation value, irrespective of their classification as protected areas,(...); Art.10 (4): (...) preserve and, where possible, rehabilitate in a sustainable manner dunes and bars; Art.11 (1): (..)</p>						

	<p>ensure the protection of coastal landscapes through legislation, planning and management;  Art.12 (1,a): Promote environmentally friendly activities in such areas and take special measures to ensure the participation of the inhabitants in the protection of coastal ecosystems based on their local customs and knowledge;  Art.14 (1): (...) ensure the appropriate involvement in the phases of the formulation and implementation of coastal and marine strategies, plans and programmes or projects, as well as the issuing of the various authorizations, of the various stakeholders, including: the territorial communities and public entities concerned, economic operators, non-governmental organisations, social actors, the public concerned;  Art. 23, (2): (..) in respect of existing activities and structures, the Parties should adopt measures to minimize their effects on coastal erosion.</p>						
<p><b>5.2.10. Enhancement of architectural heritage for the creation of the first eco-hostel in the coastal area for sustainable local development (Buggeru site)</b></p>	<p>Art.13 (1): The Parties shall adopt, individually or collectively, all appropriate measures to preserve and protect the cultural, in particular archaeological and historical, heritage of</p>						

	<p>coastal zones, including the underwater cultural heritage, in conformity with the applicable national and international instruments</p>						
<p><b>5.2.11. GIRA – Integrated Fishing Resources Management</b></p>	<p>Article 5 Objectives of integrated coastal zone management: (a) facilitate, through the rational planning of activities, the sustainable development of coastal zones by ensuring that the environment and landscapes are taken into account in harmony with economic, social and cultural development; (c) ensure the sustainable use of natural resources, particularly with regard to water use;</p> <p>Article 9 Economic activities, 1 (a) accord specific attention to economic activities that require immediate proximity to the sea; (b) ensure that the various economic activities minimize the use of natural resources and take into account the needs of future generations; (d) ensure that the coastal and maritime economy is adapted to the fragile nature of coastal zones and that resources of the sea are protected from pollution; (f) promote codes of good practice among public</p>						

authorities, economic actors and non-governmental organizations. 2  
(b) Fishing, (i) to take into account the need to protect fishing areas in development projects; (ii) to ensure that fishing practices are compatible with sustainable use of natural marine resources;

Article 10 Specific coastal ecosystems, 2  
Marine habitats  
(a) adopt measures to ensure the protection and conservation, through legislation, planning and management of marine and coastal areas, in particular of those hosting habitats and species of high conservation value;

Article 14  
Participation, 1.  
With a view to ensuring efficient governance throughout the process of the integrated management of coastal zones, the Parties shall take the necessary measures to ensure the appropriate involvement in the phases of the formulation and implementation of coastal and marine strategies, plans and programmes or projects, as well as the issuing of the various authorizations, of the various stakeholders, including: the territorial communities and public entities concerned; economic operators; non-

	governmental organizations; social actors; the public concerned.						
<b>5.2.12. Asinara National Park and Pianosa Island (Tuscany Archipelago National Park) tourism Carrying Capacity Assessment</b>	Art.12 (1,b): (..) take into account the specific characteristics of the island environment and the necessity to ensure interaction among islands in national coastal strategies, plans and programmes and management instruments, particularly in the fields of transport, tourism, fishing, waste and water.	x	LXXVII	LXXVII	LXXI	LX	LXXXI.
<b>5.2.13. Sardinian Center for coastal monitoring and assessment</b>	Art. 16 (1): The Parties shall use and strengthen existing appropriate mechanisms for monitoring and observation, or create new ones if necessary. They shall also prepare and regularly update national inventories of coastal zones which should cover, to the extent possible, information on resources and	x	LXXXII	LXXXII	LXXV	LX	LXXXVI.



	activities, as well as on institutions, legislation and planning that may influence coastal zones. Art. 16 (4)The Parties shall take all necessary means to ensure public access to the information derived from monitoring and observation mechanisms and networks.						
<b>5.2.14. Coastal vulnerability assessment tool</b>	x	LX	LXXXV	LXXXIX	XC.	XC	XCII.

**Table with Supervisors and/or contact persons for Individual Activities**

	Activity	Supervisor and/or contact person	Organisation or Body	Telephone numbers	e-mail and Skype
5.2.1	Monitoring the effects of Tuscanian beach nourishment activities south of Capalbio	Mr. Luigi E. Cipriani	Regione Toscana Settore protezione e valorizzazione fascia costiera e ambiente marino	055 4383835 331 6979706	<a href="mailto:Luigi.cipriani@regione.toscana.it">Luigi.cipriani@regione.toscana.it</a> <a href="#">Luigi.cipriani5</a> XCIII.
5.2.2	Evaluating feasibility and effectiveness of the use of alluvial sediments extracted from the Magra river drainage basin in order to restore eroding beaches in the annexed coastal cell	Mr. Luigi E. Cipriani	Regione Toscana Settore protezione e valorizzazione fascia costiera e ambiente marino	055 4383835 331 6979706	<a href="mailto:Luigi.cipriani@regione.toscana.it">Luigi.cipriani@regione.toscana.it</a> <a href="#">Luigi.cipriani5</a> XCIV.
5.2.3	Protection of the dunes of Lacona (Elba Island)	Mr. Luigi E. Cipriani	Regione Toscana Settore protezione e valorizzazione fascia costiera e ambiente marino	055 4383835 331 6979706	<a href="mailto:Luigi.cipriani@regione.toscana.it">Luigi.cipriani@regione.toscana.it</a> <a href="#">Luigi.cipriani5</a> XCV.
5.2.4	Regulations for the removal of sand and material from marine quarries	Mr. Roberto Montanari	Regione Emilia-Romagna Servizio Difesa del suolo, della costa e	051 5276880	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>

			Bonifica		
5.2.5	Operational protocol for the reestablishment and consolidation of the dune belts	Ms. Simona Fabbri	Regione Emilia-Romagna Servizio Tutela e Risanamento Risorsa Acqua	051 5276995	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>
5.2.6	Conservation of marine and coastal biodiversity with special reference to the protection of minor species	Mr. Emanuele Cimatti	Regione Emilia-Romagna Servizio Tutela e Risanamento Risorsa Acqua	051 5276847	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>
5.2.7	Development and exploitation of new forms of sustainable tourism in protected natural areas	Mr. Emanuele Cimatti	Regione Emilia-Romagna Servizio Tutela e Risanamento Risorsa Acqua	051 5276847	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>
5.2.8	Education and communication to sustainability	Mr. Emanuele Cimatti	Regione Emilia-Romagna Servizio Tutela e Risanamento Risorsa Acqua	051 5276847	<a href="mailto:@regione.emilia-romagna.it">@regione.emilia-romagna.it</a>
5.2.9	Implementation of specific activities aiming to the sustainable use of beaches and the protection of coastal zones	Mr. Paolo Vargiu Ms. Claudia Dessy	Agenzia Conservatoria delle Coste Regione Sardegna	070 6065751	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a> <a href="mailto:cdessy@regione.sardegna.it">cdessy@regione.sardegna.it</a> <a href="mailto:claudiadessy">claudiadessy</a>
5.2.10	Enhancement of architectural heritage for the creation of the first eco-hostel in the coastal area for sustainable local development (Buggeru site)	Mr. Paolo Vargiu Ms. Elisabetta Cardia	Agenzia Conservatoria delle Coste Regione Sardegna	070 6065751 070 6065929	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a> <a href="mailto:elcardia@regione.sardegna.it">elcardia@regione.sardegna.it</a>
5.2.11	GIRA – Integrated Fishing Resources Management	Mr. Paolo Vargiu Ms. Tiziana	Agenzia Conservatoria delle Coste Regione Sardegna	070 6065751 070 6065492	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a> <a href="mailto:tsaba@regione.sardegna.it">tsaba@regione.sardegna.it</a>

		Saba			<a href="mailto:tizianasaba">tizianasaba</a>
5.2.1 2	Asinara National Park and Pianosa Island (Tuscany Archipelago National Park) tourism carrying capacity assessment	Mr. Paolo Vargiu	Agenzia Conservatoria delle Coste Regione Sardegna	070 6065751	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a>
5.2.1 3	Sardinian Center for coastal monitoring and assessment	Mr. Paolo Vargiu Ms. Manuela Puddu	Agenzia Conservatoria delle Coste Regione Sardegna	070 6065751 070 6065492	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a> <a href="mailto:mpuddu.coste@gmail.com">mpuddu.coste@gmail.com</a>
5.2.1 4	Coastal vulnerability assessment tool	Mr. Paolo Vargiu	Agenzia Conservatoria delle Coste Regione Sardegna	070 6065751	<a href="mailto:pvargiu@regione.sardegna.it">pvargiu@regione.sardegna.it</a>

### 5.3 MAP Components cooperation and collaboration in the different activities related to the Project

Five MAP Regional Activity Centres (RACs) out of six and the Programme for the Assessment and Control of Marine Pollution in the Mediterranean Region (MED POL) will provide a valid support to project activities such as advice and guidance on monitoring and assessment, on preparing reports, participating to working groups meetings.

RACs are based in Mediterranean countries, each offering its own environmental and developmental expertise for the benefit of the Mediterranean community in the implementation of MAP activities.

MED POL is the scientific and technical component of MAP, responsible for the implementation of the Land-Based Sources, Dumping, and Hazardous Wastes Protocols.

#### 5.3.1 INFO/RAC

The Information and Communication Centre of the Barcelona Convention (INFO/RAC) has the mission to disseminate environmental information, establish a dialogue with the media and raise awareness through all the languages available to communication.

On August 1 2014, INFO/RAC communicated its expression of interest to collaborate and cooperate within CAMP Italy Project. Since the 16th COP in Marrakech (2009), INFO/RAC has been mandated by the Barcelona Convention Contracting Parties, to act on three main thematic areas:

- I. Information and communication technology;
- II. Information sharing, communication, education, training and awareness-raising;

III. Dissemination of results from environmental research and from innovative observation and monitoring technology.

Within the latest biannual Programmes of Work (2014-2015), INFO/RAC has been developing the Shared Environmental Information System of UNEP/MAP (InfoMAP), mainly designed to network UNEP/MAP nodes: RACs and National Nodes at Country level.

As regards the CAMP Italy Project, INFO/RAC expressed its interest in participating in Project Horizontal Actions, such as:

- (i) contributions on ICT;
- (ii) web design and development;
- (iii) capacity building;
- (iv) data interoperability and data sharing;
- (v) information dissemination.

INFO/RAC experiences on data interoperability and data sharing would be brought to the corresponding activities devised for the CAMP Italy Project. The specific activities tasks, agreed with the CAMP Italy Project's Partners, as well as PAP/RAC, are detailed as follow.

**Scope** – The participation of INFO/RAC in the CAMP Italy will provide the project with technical solutions and assistance to cross-cutting activities such as information, communication, participation and awareness raising, on the basis of its mandate and internal expertise; within this project, INFO/RAC will develop and test the Agorà component of the infoMAP platform, with special focus on the ICZM topic.

The expected result is, on one hand, to promote a better exchange of information and transparency, in particular through transferring, sharing and discussing what will emerge from the critical analysis of the specific CAMP Italy activities, at the same time enhancing the visibility of activities carried out under the Barcelona Convention; on the other hand, to improve the MAP "listening antennas", through awareness-raising activities and engagement of the interested parties, as well as through the collection of data and observations from communities and general public (CitizenScience).

**Focus** -The objective of the participation is setting up and hosting the **portal** of the CAMP Italy project, to be implemented in collaboration with the institutional stakeholders: Region of Emilia-Romagna, Region of Sardinia, Region of Tuscany, Ministry of the Environment, PAP/RAC and other MAP interested components.

**Activities** – The development of the CAMP Italy portal is part of the cross-cutting activities of the project; the objective is to implement and integrate, *inter alia*, the following features and tools:

- **document repository**, through the creation of interest groups (Groupware infoMAP);
- **spatial data infrastructure** for searching, sharing and viewing geo-referenced data of the Project CAMP Italy and possibly other CAMP projects and other projects and / or processes (e.g. connection to the EcAp process);
- **online survey application** for electronic questionnaires and subsequent data processing;
- **e-learning platform** for online courses (i.e. Moodle).

In addition, support will be provided to the following activities:

- definition and implementation of the communication plan of the project;
- identification of stakeholders and preparation / implementation of engagement plan.

**Resources** - INFO/RAC will participate in the CAMP Italy with in-kind contribution, which includes personnel, information/communication technologies and applications currently operated by the Centre. Other expenses, such as purchases of goods/services and missions, shall find the appropriate fund within the CAMP Italy project budget, or through fund raising from different sources.

Mr. Claudio Maricchiolo (claudio.maricchiolo@isprambiente.it) is the person from INFO/RAC who is in charge of this task.

### **5.3.2 SPA/RAC**

The Regional Activity Centre for Specially Protected Areas (RAC/SPA) was established by the Contracting Parties to the Barcelona Convention and its Protocols in order to assist Mediterranean countries in implementing the Protocol concerning Specially Protected Areas and Biological Diversity in the Mediterranean.

Ms. Lobna Ben Nakhla (lobna.bennakhla@rac-spa.org) is the person from RAC/SPA who is in charge of this task.

The specific activities and tasks, agreed with the CAMP Italy Project's Partners, as well as PAP/RAC, are detailed as follows.

#### **1. Process of involvement of stakeholders taking into account the experience in MPA creation and management**

SPA/RAC will support the CAMP Activities (Horizontal and some Individual) on the identification and adoption of participatory approach, that is to ensure the participation of key stakeholder (the importance of stakeholder perspective), based on its experience on planning, identifying, creating and managing MPAs.

In fact, stakeholders' involvement is crucial for all steps of integrated management: baseline review of the situation, target setting, political commitment, implementation and monitoring of the process, and evaluation and reporting. The intensity of the stakeholders' involvement in the process varies but the most common forms of participation are the hybrid ones, a mixture of ad-hoc and formalized participation processes. The involvement and participation of stakeholders should take place at different political levels (national, regional and local) and be applied in a vertical but also horizontal direction in order to achieve sustainable decisions.

The proposal of a roadmap of activities should concern all stakeholders and every intervention level. The integration of these levels is an important element of good governance. The details of each activity must be adapted to the stakeholders' level of awareness and advancement, but remain key to achieve the objectives.

In order to make each stakeholder more accountable, the proposed roadmap is built on three levels: local, national and regional (Mediterranean). Stakeholders, such as the ones mentioned below, are more or less mobilized, depending on their level.

## **2. Management and good governance at local, national and regional levels taking into account the experience with MPA management**

Coastal management effectiveness requires a clear national political determination and organization, which ensures the establishment of a clear institutional framework, proper planning as well as adequate human, technical and financial resources. Thus, good management requires the development of integrated and coordinated policies, the clarification of responsibilities and legal, institutional and administrative frameworks.

Co-management is the most operational and effective mechanism of governance to manage natural resources and coastal areas, (as well as MPAs). It promotes stakeholders accountability and has useful adaptive management methods to manage complex systems such as ecosystems. Stakeholder involvement (including those belonging to local governments) in co-management processes should be systematically promoted. Several mechanisms of governance and management exist, such as those developed by the populations.

Contracting Parties to the CBD (Decision XI/24) confirmed the importance of integrating a diversity of statutes and modes of governance in MPA networks; the same conclusion must be extended to coastal areas. In addition, the implementation of management tools (such as MPAs or reserves by artisanal fishermen) are being developed and management measures already exist in several sectors. Conservation stakeholders, and those from other sectors, must recognize existing resources and biodiversity management measures to develop synergies rather than oppose them.

## **3. Capacity-building and communication**

SPA/RAC will support the CAMP Activities on the identification of capacity building strategies on the preparation of an ICZM Programme as one of the most effective tools also for biodiversity protection and to combat ever-increasing demands on coastal and marine resources.

With reference to MPAs, according to a study (2012) commissioned by WWF MedPO, MedPAN and RAC/SPA in order to assess capacity building needs and priorities at both the national and the MPA levels, and formulate a capacity building strategy that responds to the management needs of the Mediterranean MPAs at the regional, national and local levels, the four main priority training topics for area the following:

- Conservation of particular habitats or species;
- Stakeholder engagement;
- Marine Biodiversity and Ecology; and
- Fisheries management.

### 3.1. Awareness-raising, communication and environmental education

SPA/RAC will support the CAMP Activities also on issues such as awareness-raising, communication and environmental education. These aspects -based on a detailed analysis of the needs in terms of environmental education of the different target groups, as well as on partnerships with organizations that are already active in this field -can be important and useful for raising the local decision-makers' awareness and obtaining their support for the general management of coastal areas.

By environmental education and awareness-raising, are meant all the activities aimed at introducing the environment and its issues and helping people understand them, through activities and/or educational tools that institutions/managers conduct and develop for the general public (tourists and local populations) and schools as well as for socio-professional groups and local decision-makers, in order to raise awareness of natural environment conservation and human and economic challenges.

Innovative initiatives should be taken regarding environmental education and awareness-raising:

- Experiences existing outside coastal areas could be adapted;
- Communicate on transversal topics (e.g.: climate change, invasive species, etc.);
- Involve local users (e.g.: fishermen, divers, etc.);
- Find ways to reach local decision-makers and transmit messages to them;
- Use new technology tools (facebook, twitter, applications, 3D, CDs, etc.) to spread the messages more efficiently, or to reach a wider range of targets.

**Resources** - SPA/RAC will participate in the CAMP Italy with in-kind contribution. Other expenses, such as purchases of goods/services and missions, shall find the appropriate fund within the CAMP Italy project budget, or through fund raising from different sources.

#### 5.3.3 Blue Plan

The objective of the Blue Plan/RAC is to contribute to raising awareness of Mediterranean stakeholders and decision makers concerning environment and sustainable development issues in the region, by providing future scenarios to assist in decision-making. In this respect and through its dual functions as an observatory of the environment and sustainable development and a centre for systemic and prospective analysis, the BP/RAC's mission is to provide the Contracting Parties with assessments of the state of the environment and development of the Mediterranean and a solid basis of environmental and sustainable development data, statistics, and indicators to support their action and decision making process.

The specific activities tasks, agreed with the CAMP Italy Project's Partners, as well as PAP/RAC, are detailed as follow.

#### **Possible Plan Bleu's contributions in CAMP Italy and specifically under the Objective 3.**

*“Verification of the sustainability of socio-economic activities which stress the coastal area through application of the ecosystem and the economic evaluation of ecosystem services (PES, TEEB, etc.); in particular tourism, fishing, coastal defence”, **Action 3.** “Sustainability of socio-economic stress on the coastal zone (in particular tourism, fishery, structures for coastal defense).”*

Plan Bleu has proposed the following **in-kind collaboration**:

- 1) Provide relevant communications related to the above mentioned *“Objective / Action”* and in particular in:

- Tourism. The consultation of Plan Bleu Documents can be done on « Profile of Sustainability in some Mediterranean tourism destinations »
- Fishing. The consultation of Plan Bleu Documents on this topic can be done on PB's website dedicated pages.
- Coastal defense. In the frame of ClimVar project, Plan Bleu is working with UNEP GRID Geneva to run a model which estimates the role played by ecosystem to limited coastal erosion due to sea level rise resulting of climate change impacts.

The above-mentioned documents may support Project activities with valid data, tools and relevant conclusions.

- 2) Moreover, synergies may be found with Med IAMER regional project. Indeed, in this project Plan Bleu is involved and responsible for developing a structured dialogue with relevant stakeholders in order to validate main drivers, pressures and the relevance of policy responses in place to reduce drivers of change and environmental pressures. Plan Bleu is ready to share identified stakeholders, useful during the preparation of list of stakeholders. In that way Plan Bleu will provide its expertise before meetings.

The Mediterranean Information System on Environment and Development (SIMEDD) could be important especially during the "data collection" phase as presented on the CAMP Inception Report.

- 3) In addition, Objective 3 of CAMP Italy, where Plan Bleu could participate, is firmly in the field of environmental economic evaluation particularly in terms of assessing the benefits from the marine Mediterranean ecosystem and economic and social analysis as part of ECAP and Perseus.
- 4) Plan Bleu is also interested in participating to "brainstorming sessions" of Capacity building activities, and as a peer reviewer of deliverables (intermediate and final) on topics Plan Bleu can capitalize on.

**Resources** –PB will participate in the CAMP Italy with in-kind contribution. Other expenses, such as purchases of goods/services and missions, shall find the appropriate fund within the CAMP Italy project budget, or through fund raising from different sources.

The contact point for CAMP Italy Project in Blue Plan is Mr. Antoine Lafitte (alafitte@planbleu.org).

### 5.3.4 SCP/RAC

The Regional Activity Centre for Sustainable Consumption and Production (SCP/RAC) is a Centre for international cooperation with Mediterranean Countries on development and innovation in the production sector and civil society, based on more sustainable consumption and production models.



The contact point for CAMP Italy Project in SCP/RAC is Mr. Alessio Satta and Mr. Enrique de Villamore Martín (evillamore@scprac.org).

The specific activities tasks, agreed with the CAMP Italy Project's Partners, as well as PAP/RAC, are detailed as follows.

**SCP/RAC involvement in CAMP Italy through an SCP expert in the tourism sector**

Considering the limited resources and current workload of the SCP/RAC team, we offer to participate to the CAMP Italy through the involvement of an Italian SCP expert in the tourism sector. This expert will guarantee a **basic support** to the CAMP coordinator (detailed below). Nevertheless, if other resources are made available SCP/RAC will propose an **extended support** with a number of activities to better integrate SCP the horizontal and individual activities of CAMP Italy.

A first suggestion of activities is made below but will be reviewed depending on the development and needs arising during the project.

**Proposed Activities**

The SCP/RAC support will be provided to the following activities:

- a) Support to the CAMP coordination group for the evaluation of the individual (carried out by the Regions) and horizontal activities and their impact in terms of shift to SCP in the target regions;
- b) Support in the drafting of the CAMP implementation strategy with the objective of ensuring integration of SCP actions and clear interlinks with the implementation roadmap of the SCP Action Plan for the Mediterranean;
- c) Participation to at least one meeting.

SCP/RAC will participate in the CAMP Italy Project with in-kind contribution.

The SCP expert will be in regular contact with SCP/RAC in order to ensure that:

- SCP/RAC is well informed about the development of the CAMP Italy and in particular on how SCP is integrated (a simple reporting mechanism will be defined with the SCP expert);
- SCP/RAC provides support to the SCP expert and shares its expertise with him in view of enhancing the contribution of SCP/RAC to the CAMP Italy project.

An additional support shall be provided depending on appropriate fund within the CAMP Italy project budget, or through fund raising from different sources. The proposed actions associated to horizontal and individual activities are presented in the following table.

CAMP	SCP/RAC support action	Beneficiary	Output
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Activities			
<b>Horizontal</b>	Capitalization of results and lessons learnt in the CAMP Italy highlighting weaknesses and strengthens of horizontal and individual activities in terms of SCP contribution	CAMP Steering Committee (Tavolo CAMP)	Capitalization Report
	Guidelines to mainstreaming SCP in beach management activities and works (e.g. tourism services, beach cleaning, etc.)	CAMP Steering Committee	Guidelines
	Organization of a SCP Workshop (e.g. focusing on Tourism and Fishery) in the framework of already foreseen CAMP Italy initiatives	CAMP Steering Committee Tourism Sector Fishery Sector	Workshop
	Preparation of SCP educational toolkit for the tourism sector (and fishery sector)	Tourism sector Fishery Sector	Educational Toolkit
	Training activities (e.g. webinar)	Tourism sector Fishery Sector	2 days (every day two thematic sessions of 4 hours for a total of 16 hours) workshop through WEBINAR  (involving external experts)
<b>Individual</b>	Direct support to the Regions for the implementation of the individual activities carried out by the Regions concerning economic activities (e.g. sustainable tourism, fishing)	Emilia-Romagna Sardinia	

### 5.3.5 UNEP/MAP MEDPOL CONTRIBUTION TO CAMP ITALY

MED POL is the scientific and technical component of MAP, responsible for the implementation of the Land-Based Sources, Dumping, and Hazardous Wastes Protocols. MED POL assists Mediterranean countries in the formulation and implementation of pollution monitoring programmes, including pollution control measures and the drafting of action plans aiming to eliminate pollution from land-based sources.

The Coastal Area Management Programme (CAMP) of the Mediterranean Action Programme (MAP) promotes pilot projects in coastal areas in which Integrated Coastal Zone Management (ICZM) is the main tool for promoting the implementation of sustainable development policies.

CAMP pilots by nature can be very innovative projects. Being implemented at small, medium and large scale they allow for implementing and testing a variety of tools led by the ICZM principles of the ICZM protocol as well as other regional measures in an integrated manner with the view to promote and ensure sustainable development.

In this context, CAMP Italy including several important coastal strips involving three Italian regions Emilia Romagna, Sardinia and Tuscany offers a great opportunity to implement the ecosystem approach and regional programmes of measures recently adopted by the contracting parties to the Barcelona Convention and its Protocols such as Marine Litter Regional Plan.

ML Regional Plan is based on ecosystem approach and aims at preventing ML generation and reducing its impact on human health and marine environment. It provides for the countries to take policy, regulatory and other measures at national and regional/local levels. The measures focus on prevention such as EPR, establishing deposit system for bottles, ban of single use of plastic bags, etc, promote recycling and recovery, etc; ensure integrated solid waste management, identify of marine litter hot spots, undertake monitoring programme and assessment; collect and remove accumulated litter, etc.

The MED POL programme contribution to CAMP Italy shall aim at:

- a) supporting the consideration of Marine litter and implementation of the Marine litter regional plan in the CAMP areas thus ensuring at achieving GES;
- b) piloting the linkage and integration between CAMP activities and the implementation of and pollution related legally binding measures adopted by COP such as the Regional Plan adopted by last COP in November 2013, Istanbul, Turkey on marine litter management.

### **Proposed Activities**

The MED POL support will be provided to the following activities:

- d) provide guidance on ML monitoring and assessment in the CAMP area based on ecosystem approach;
- e) provide guidance on preparing a state of play report on marine litter management in CAMP area based on desk review;
- f) support the drafting of the CAMP implementation strategy with the objective of ensuring integration of ML actions and measures;
- g) participate to at least at one meeting in the course of implementation of the project to suggest a list of potential actions addressing marine litter.

MED POL will participate in the CAMP Italy Project with in-kind contribution.

The following additional support shall be provided depending on appropriate fund within the CAMP Italy project budget, or through fund raising from different sources:

MED POL support	Beneficiary	Output
Draft a ML monitoring programme addressing also governance issues, stakeholder participation and cost estimation	CAMP Steering Committee (Tavolo CAMP)	Report
ML assessment report for the project area based on ECAP indicators and existing information and publication to raise awareness	CAMP steering committee	Report
Guidelines to mainstream ML regional plan commitment in the CAMP strategic plan	CAMP Steering Committee UNEP/MAP	Guidelines
Organization of a Workshop on ML prevention measures in cooperation with SCP/RAC	CAMP Steering Committee Tourism Sector Fishery Sector	Workshop
Definition of ML programmes of measures for the CAMP project and operational targets for the project areas	CAMP steering committee	Report
Pilot the implementation of fishing for litter based on UNEP MAP guidelines under preparation process	Regions	Removal of ML by fisher men Workshop

#### 5.4 Lessons learned and proposals for ICZM implementation at national and regional level

Finally, from the information provided by CAMP Regions, it is absolutely evident that individual activities give significant contribution to the definition of the ICZM National Strategy and it is clear that they have the potential to do this, at least by providing concrete opportunities to stimulate and promote a strong coordination among regions.

Once all the Individual activities are completed, an analysis of the lessons learned on the implementation will be prepared so to summarize the main added values, gaps, good practices and alike with regard to the CAMP objectives/ICZM Protocol requirements, as well as other regional plans such as the one on marine litter so to enhance beach sustainability. This synthesis will be of use for the national level ICZM implementation such as National ICZM Strategy preparation and establishment/improvement of institutional coordination for ICZM.

Also, this report will bring ideas for and proposals for the replication and sharing with other regions as well as for using the CAMP Italy experience in other Mediterranean countries.

This summary could be prepared by the involvement of Tavolo CAMP and the National Project Coordinator by analysing Individual as well as Horizontal Activities by using a common outline and criteria. As such, the report should make a major part of the Integrated Final Report of CAMP Italy and therefore enable integration at regional and national level and provide an identity of this CAMP.

As reporting will be carried out and managed by the Horizontal Activity 1 “Coordination and dissemination of the results”, all the actions aimed at analysing lessons learned from CAMP Italy Individual Activities and at presenting proposals for ICZM implementation, at national and regional level, will be handled in the framework of that Horizontal Activity and supported by its budget.

## 6. Monitoring, Evaluation and Reporting

During the monitoring process the following aspects will be taken into consideration:

- activities implemented, their results and outputs, direct benefits, financial aspects, problems encountered, corrective actions undertaken;
- activities in preparation and/or on-going: present state, problems, actions undertaken or needed for solving them, prospective of implementing activities in preparation;
- methodologies, tools, and procedures applied by the Project: introduced or applied in national/Project area practice, problems encountered, corrective actions, expected results;
- planning initiatives/activities undertaken or in preparation;
- institutional and/or legal and/or management-related initiatives according to the proposals made by the Project;
- catalytic effect of the Project in the Project area or at the national level; and
- identification of direct, and of indirect benefits and beneficiaries of the Project.

The evaluation procedure will be based on the results of the monitoring process.

Regular Progress Reports and final Reports will be presented at the Project level and at the level of individual activities.

Progress reports will be provided at half-yearly base by:

- the PTCO at the level of each individual Project activity;
- National Project Coordinator at the Project level; and
- MAP Project Director.

The reports of PTCO will be presented to the Tavolo CAMP and to PAP/RAC.

The reports of National Project Coordinator and of MAP Project Director will be presented to Italian MELS, to PAP/RAC and to MEDU.

The Final Project Report will be prepared by MAP Project Director on the basis of the draft version prepared by the National Project Coordinator.

Moreover, progress of the Project implementation and the use of the Project results in the post Project period will be evaluated with achievement indicators at several levels and reported within regular Progress Reports.

Project results in the post Project period will be evaluated on the base of a list of indicators, by the Italian authorities as well as by PAP/RAC

The assessment of the Project results, taking into account the above-listed indicators, will be reported by the Italian MELS within regular Post Project Reports; and by PAP/RAC within the Project Terminal Report, and other documents.

## 7. WORKPLAN AND BUDGET

### 7.1 Workplan and Timetable

The Project Workplan, structured according to the implementation procedure and the relevant Timetable are presented below:

	2014			2015				2016			Follow-up	
<b>Signature of the Agreement</b>	X											C)
<b>Detailed formulation of the Project</b>	O	O	O									C)
Draft Inception Report		X	X									C)
Draft Pre-requirements of Technical Specifications and operational details			X	X								C)
Inception Conference				X								C)
Final Inception Report				X								Cl
Meeting prerequisites for implementation				X								Cl
<b>Implementation</b>		O	O	O	O	O	O	O	O	O		C)
<i>Initial activities</i>		X	X	X								Cl
Final Technical Specifications and operational details				X								Cl
TOR for consultants (if any)				X	X	X	X	X				Cl
Signature of consultants' contracts (if any)				X	X	X	X	X				C)
<i>Implementation of Project activities</i>												C)
<i>Integration of results</i>								X	X	X		C)
Final integrated Project documents								X	X	X		C)
Presentation Conference										X		C)
Terminal Report											X	C)
<b>Post Project activities</b>												O
Follow-up activities (host country)												X
Monitoring, evaluation, reporting (host country)												X
Presentation of the Project results at MAP level (MAP - PAP/RAC)												X

### 7.2 Budget and Cost-sharing

#### Estimated budget (€) and indicative contributions

HORIZONTAL ACTIVITIES					
Cod.	Activities	Regions	MELS	MAP CCII.	Total
5.1.1	Coordination and dissemination of the results	€ 55.350	€ 94.650	€ 72.000(PAP/RAC)	€ 222.000
5.1.2	Capacity building	€ 18.450	€ 21.550		€ 50.000

5.1.3	Data collection and management	€ 18.450	€ 31.550		€50.000
5.1.4	Institutional coordination and public participation	€ 55.350	€ 94.650		€150.000
<b>Horizontal Activities Total</b>		<b>€147.600</b>	<b>€252.400</b>	<b>€72.000</b>	<b>€472.000</b>

INDIVIDUAL ACTIVITIES				
Cod.	Activities	Regions	MELS	Total
5.2.1	Monitoring the effects of Tuscanian beach nourishment activities south of Capalbio.	€ 40.000	€ 26.667	€66.667
5.2.2	Evaluating feasibility and effectiveness of the use of alluvial sediments extracted from the Magra river drainage basin in order to restore eroding beaches in the annexed coastal cell.	€ 150.000	€ 100.000	€250.000
5.2.3	Protection of the dunes of Lacona (Elba Island).	€ 20.000	€ 13.333	€33.333
5.2.4	Regulations for the removal of sand and material from marine quarries.	€ 10.000	€ 6.667	€16.667
5.2.5	Operational protocol for the reestablishment and consolidation of the dune belts (natural or artificial/reconstructed).	€ 8.000	€ 5.333	€13.333
5.2.6	Conservation of marine and coastal biodiversity with special reference to the conservation of minor species.	€ 69.800	€ 46.534	€116.334
5.2.7	Development and exploitation of new forms of sustainable tourism in protected natural areas.	€ 23.000	€ 15.333	€38.333
5.2.8	Education and Communication to sustainability.	€ 14.000	€ 9.333	€23.333
5.2.9	Implementation of specific activities aiming to the sustainable use of beaches and the protection of coastal zones.	€ 540.000	€ 360.000	€900.000
5.2.10	Enhancement of architectural heritage for the creation of the first eco-hostel in the coastal area for sustainable local development (Buggeru site).	€ 2.400.000		€2.400.000
5.2.11	GIRA – Integrated Fishing Resources Management.	€ 240.000	€ 160.000	€400.000
5.2.12	Asinara National Park and Pianosa Island ( <i>Tuscany Archipelago National Park</i> ) tourism Carrying Capacity Assessment.	€ 90.000	€ 60.000	€150.000
5.2.13	Sardinian Center for coastal monitoring and assessment.	€ 77.400	€ 51.600	€129.000
5.2.14	Coastal vulnerability assessment tool.	€ 78.000	€ 52.000	€130.000
<b>Individual Activities Total</b>		<b>€3.760.200</b>	<b>€906.800</b>	<b>€4.667.000</b>



<b>CONTRIBUTIONS TO THE PROJECT – ALL PARTENERS</b>					
	<b>PARTNERS</b>	<b>Horizontal Activities</b>	<b>Individual Activities</b>	<b>Feasibility Study</b>	<b>Total</b>
	<b>MINISTRY OF ENVIRONMENT, LAND AND SEA OF ITALY</b>	€ 252.400	€ 906.800	€ 80.800	<b>€ 1.967.200</b>
	<b>PAP/RAC</b>	€ 72.000	-	€ 7,000	<b>€ 79.000</b>
	<b>TUSCANY REGION</b>	€ 49.200	€ 210.000	-	<b>€ 259.200</b>
	<b>EMILIA-ROMAGNA REGION</b>	€ 49.200	€ 124.800	€ 36.000	<b>€ 210.000</b>
	<b>SARDINIAN REGION</b>	€ 49.200	€ 3.425.400	€ 85.200	<b>€ 3.559.800</b>
<b>Total</b>		<b>€ 472.000</b>	<b>€ 4.667.000</b>	<b>€ 209.000</b>	<b>€ 5.348.000</b>