Sea Life Forest

Information Session

July 2020

MALTA

Online Session

REPORT ON FIRST CONFERENCE

AUGUST 2020

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Contents

Introduction

This document represents the report on the first conference held in Malta on 29th July 2020. This deliverable was meant to be delivered in May 2020, however due to the COVID pandemic – it was agreed together with the LP to postpone the event till summer when it was expected that travel would be possible. However by summer 2020, both Italy and Malta still had travel restrictions in place and it was decided the meeting be held on line.

The first event on the implementation of the Sea Life Project in Malta took place the 30th of July 2020.

The meeting was organised by the Maltese Partner, Paragon Europe, and co-organised together with the LP of the project, D.R.E.A.M Italia. The meeting was held on ZOOM and it lasted 4 hours. The Conference followed the agenda below.

Fig 1 Copy of Programme

The Objective

The main objective of this conference was to present the Sea Life Project and notably its implementation in Malta. The event's core initiative was to raise awareness about the project among the Maltese stakeholders of the maritime sector, and to encourage the spread on the country.

Methodology

As part of its work, Paragon Europe prepared a list of local stakeholders which forms the basis of the deliverable – list of stakeholders for the local network.

Due to the sanitary situation, no physical meeting was possible, and initial contacts were initiated by e-mails and later on by phone calls and skype. A total of 34 different organisations that Paragon estimated relevant received an invitation. Nine (9) confirmed their attendance, however on the day three (3) confirmed participants were not able to attend due to personal duties.

Attendees

The final list of participants attending the webinar was as follows:.

MALTA REPRESENTATIVES

- Two (2) members of Paragon Europe: Nadia Theuma, Director, Projects Paragon Europe and Pierre Andong, Project Assistant.
- One (1) member of the Ministry of Environment Climate Change and Planning: John Grech, Private secretary of the Minister.
- One member (1) of the International Ocean Institute : Cosmin Chivu, Project Manager
- One member (1) of the NGO BICREF: Greg Nowell, Conservation biologist
- One member(1) of the NGO Nature Trust Malta: Martina Cutajar, Site Manager for Marine area
- One member of the National Aquarium(1) : Thaise Amarel, Education Coordinator
- One member of the GAIA Foundation (1) : Rodolfo Ragonesi, CEO

ITALIAN REPRESENTATIVES

- Two (2) members of the D.R.E.A.M Italia, Project Leader: Marcello Miozzo, Project Manager of the Sea Life Project and Matteo Ruocco
- One (1) member of ISPRA Italia: Dr Francesco Rende, in charge of the habitat mapping and the designing of new models of inquest for the
- One (1) member of the UNITUSCIA : Simone Bonamano, Analyst specialist of pollution questions in coastal areas and notably, Posidonia Oceanica

Conference Content

Dr. Nadia Theuma (Paragon Europe) introduced Paragon Europe and welcomed the participants. Dr. Theuma presented briefly Pargon's role in the project and the role of the project for Malta.

The second presentation was delivered by Marcello Miozzo, Lead Partner of the Project has presented the SEA Life Forest. The Sea Life Project's goal is to supply a service for ecosystems of Posidonia Oceanica meadows. Posidonia has several functions:

- Carbon storage
- Production of oxygen dioxide
- Erosion prevention of coastal areas
- Shelter for living marine species

Hence, Posidonia Oceanica give multiple services for the conservation of the Mediterranean ecosystem. Yet, throughout the last century, this habitat has been deteriorated, to a large extent by human activities. Three main causes can be stated:

- the pollution: meadows are harmed by chemical substances and can not thrive in ideal conditions
- the trawling: this fishing methods is forbidden and yet, still used, provoking severe damages in the repartition of Posidonia Oceanica on the seabed.
- The anchorage: directly made on the seabed, it tears off meadows and leads to the depletion of the Posidonia meadows

The serious risk of extinction of such important actor of marine ecosystem lead to the creation of the Sea Life Forest, coordinated by the D.R.E.A.M Italia. It will combat this phenomenon by implementing sustainable and innovative solutions in areas of Mediterranean Sea where Posidonia Oceanica is the most present: Italy and Malta. Funded under the LIFE Program, with a total budget reaching more than 3 million euros. The project lasts 5 years (from 01/09/2018 to 31/12/2023), and will be divided into 4 activities:

1) Calculation of the carbon deposit and a state-of-the-art picture of the three protected areas involved in the project.
2) Bringing an improvement in the habitat and its conservation. 3 plans of management for the anchoring of boats in the areas identified. The final objective is the installation of 120 tailored and sustainable spots for anchorage.
3) Actions of re-vegetation of Posidonia will be carried out in 120 areas scattered among the 3 Italian National Parks in which the project is implemented.

4) The final step, which is meant to lead to a sustainable model. The use of Posidonia as a carbon sink should lead to the creation of a methodology to create a national digital platform on which could be acquired carbon credits coming from the carbon produced by Posidonia Oceanica. Combined with the precedent actions, this final step intends to create a virtuous circle that will act both on the conservation, the revitalization, and the economic development of the area.

The second presentation was made by Doctor Francesco Rende, from the ISPRA (Superior Institute for the Protection and the Environmental Research). The ISPRA participates to this project as a partner and is particularly involved on the first activity of the project, and Doctor Rende is responsible of the action of the ISPRA at this stage.
More precisely his role is to implement relevant preparative actions regarding the organisation of mapping data necessary for the assessment of the Posidonia meadows. This action requires a series of methodologies to assess the degradation status of the meadows, to measure the extent of actions necessary for the project. In a normal state, Posidonia meadows absorb a certain quantity of CO2 which are stored in 3 storage compartments of the plant: the sediment, the matte and the banquette. Studies made on these habitats show that the level of degradation of Posidonia is the same as the one observed on land: in unhealthy environment, the Posidonia not only rejects fewer dioxygen, but also greenhouse gases such as methane.

At the methodological level, the necessary material has been collected to prepare the assessment work: data collection of all the areas of study (National Parks). It involves mapping data, the existing bibliography on the thematic of blue carbon and carbon sink and satellite images, notably acquired by the satellite Sentinel-2 “Copernicus”. This material will be used to develop a methodology of remote sensing to assess the situation of Posidonia meadows. First images collected show how the area of repartition of Posidonia has been reduced due to human activities.

The third presentation was made by Doctor Simone Bonamano from the University of Tuscia. The role of the University and Dr Bonamano in this project is to analyse and to assess the carbon stock of the Posidonia meadows. Working collaboratively with ISPRA on the first stage of the project, the University of Tuscia’s activity is divided into 4 part

- The definition of a standard protocol for the carbon calculation in the Posidonia Oceanica.
- The estimation of the carbon in the areas of study
- The analysis of the relation between the degradation of the habitat, and the loss of CO2 in the Posidonia Oceanica.
- The evaluation of the economic cost of the implementation of new anchorage solutions in the areas of study.

The InVest-Coastal Blue Carbon is the model selected to achieve these goals. The choice of this method is due to several reasons: its simplicity of utilisation and

understanding and its adaptability to different areas and topics. It was a model designed at the University of Standford Californy and destined to the economic evaluation of carbon sinks. This model relies on three main topics: the biomass, the necro-mass, and the sediment (where is stock a major part of carbon). Relying on these three main environments, the Invest model use a 3 steps methodology aiming at assessing the CO2 in Posidonia Oceanica:

1) The evaluation of data gathered thanks to mapping material
2) The calculation assessment of the repartition of Posidonia meadows on the Mediterranean seabed
3) A software analyses these data and compiles them into a bibliography ready to be immediately used. The data provide information on the carbon stock, the accumulation of carbon and the emission of carbon
4) Once these parameters gathered, a calculation is processed: the carbon sequestration in the carbon sinks will be the difference between accumulation and the emission of carbon.

The model has already been implemented, giving encouraging results.

The final step of the presentation was the demonstration of best practices for the project. It appears that several positive actions re-usable were carried out so far:

- Assessment of areas compatible with sustainable anchorage
- Use of systems having no negative impacts on anchorage infrastructures (existing and implemented) and boats while preserving the Posidonia meadows
- Removal of obsolete anchoring infrastructures
- Projection of extension and implementation of new areas of studies
- Proposition of new solutions for anchorage in most busy areas
- Creation of an application based on the mapping data collected for the project.

Conclusions and Way Forward

Based on this methodology, the project will be implemented in Malta, respecting specificities of Maltese territory. The next steps of this project in Malta will consist in the transfer of information and the dissemination among Maltese stakeholders. The aim is to raise awareness about Posidonia on the Maltese territory, and to relay information to other entities to other Mediterranean areas where Posidonia is existing. An extensive list of local and foreign Mediterranean stakeholders has already been established. For the latter, Paragon Europe will liaise with them later in the project.

This project requires, to be sustainable, a full support at the political level which, through relevant policies and political actions, will help the project to thrive and become an example for all the Mediterranean area.