D5.1 Report mapping the governance status quo in pilot sites

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WP5

Lead beneficiary: IUCN

Author: Biljana Aljinović

Contributors: Carla Danelutti, Emmi Lindqvist, María del Mar Otero, Mindert de Vries, Albert Vos, Nuno Caiola, Vicenç Gracia, Nil Álvarez, Laura Puértolas, Jaime Ordóñez, Silvia Torresan, Caterina Dabalà, Francesca Coccon, Grzegorz Różyński, Nikolay Valchev, Nataliya Andreeva, Elitsa Hineva, Olivier Boutron, Rosaria Ester Musumeci, Massimiliano Marino, Christophe Briere, Julien Dalle, Margot Defoort-Levkov, Margot Ahr, Yael Salame Rubin, Simon Nemtzov, Avi Uzan

REST-COAST

Large Scale RESToration of COASTal Ecosystems through Rivers to Sea Connectivity

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Preface

Coastal regions provide some of the most productive and biodiverse environments with an important and often underappreciated carbon storage potential. At the same time, they are among the areas of highest population density, natural assets and cultural heritage in the world, yet are experiencing significant social, economic and environmental challenges, exacerbated by climate change and human pressures.

The REST-COAST project (Large scale RESToration of COASTal ecosystems through rivers to sea connectivity) will demonstrate to what extent upscaled coastal restoration can provide a low-carbon adaptation, reducing risks and providing gains in biodiversity for vulnerable coastal ecosystems, such as wetlands or sea grass beds. By overcoming present technical, economic, governance and social barriers to restoration upscaling, REST-COAST will develop the large scale river-coast connectivity and increase the nearshore accommodation space for the resilient delivery of coastal ecosystem services (ESs). The selected ESs (risk reduction, environmental quality and fish provisioning) touch urgent coastal problems such as the erosion/flooding during recent storms or the accelerating coastal habitat degradation that seriously affects fisheries and aquaculture. Combining new techniques, risk assessments, innovative financial/governance arrangements and homogeneous metrics for ESs and biodiversity, REST-COAST will develop a systemic approach to coastal restoration based on a scalable coastal adaptation plan.

Summary

Restoration programmes sometimes face strong difficulties due to political and institutional constraints, ineffective supply of governance and accountability, lack of incentives or conflicts between development/resource exploitation and nature conservation goals, among others. Work Package 5 of the REST-COAST project aims to identify the main critical governance barriers for large scale active/passive restoration (and conservation) in REST-COAST Pilot ecosystems, deriving guidance to produce a roadmap for upscaled restoration on other sites.

This document presents the governance status quo in nine project Pilot Sites as a starting point for future planning and to facilitate discussions and development of the Pilots moving forward. The report and its Annexes represent the baseline information at Pilot Site level for further developing an evolving planning tool that will allow for a more detailed analysis of existing governance structures, potential barriers of progress, and identify priority action points to increase governance for restoration at each pilot. The process will build upon existing knowledge and results from other work packages to create an enabling socioeconomic environment for transformative and restoration-supportive governance to better integrate policies and mechanisms for large scale coastal restoration.

The present governance structures in the Pilots have been briefly analysed by mapping the current governance conditions and how they could learn/evolve, responding to its functions. The methodology used for the mapping of the current governance baseline was based on a rapid self-assessment tool which included a series of criteria that the Pilot Sites were asked to self-evaluate based on how well the existing governance structures respond to it. The results from each Pilot, organised in aggregated scorecards, were analysed in order to identify main strengths and weaknesses of the current governance system for each site.

The main findings from the assessments indicate that overall, effective governance is hindered by a lack of transparency, unresolved conflicts, and unclear mandates. Participatory processes are generally scarce, mostly project-based and insufficient to consider them inclusive and comprehensive. Different economic sectors often have a strong influence over what happens at the site, and local communities also show low levels of trust towards the public administrations in charge. In general, awareness of the benefits of restoration and associated Nature-based Solutions (NbS) is low among the local community and other stakeholders.

Based on these first baseline results, a series of general recommendations for the project pilot actions were developed, summarised as follows:

- Clarify mandates and competencies with regards to restoration actions at sites and work towards establishing mechanisms to overcome the lack of coordination at different governance levels and increase mutual understanding of priorities. Once this happens, work to ensure the sustainability and continuity of such mechanisms.
- When designing participatory activities and communication materials, consider local realities and cultural context, as well as the need to balance the audience in terms of gender and representativity of minority groups (if relevant).
- Increase awareness of restoration and NbS benefits among the local communities by planning and organising different events, roundtables and educational activities, as well as creating and disseminating communication materials.
- Advocate with different sectors for them to apply more sustainable approaches in their actions at the site by showcasing them the overall long-term benefits. Make use of good practice examples from around the EU and involve the scientific community in dissemination actions. Try to engage the sectors in committing funds by showing economic benefits in the end.

- Make sure you are familiar with all policies that are relevant for restoration actions at your site(s) and identify entry points for restoration valorisation and funding opportunities.
- For transboundary sites, work towards establishing partnerships that will allow for joint actions, learning exchanges and opportunities for mutual benefit and increased value for the site. Where these mechanisms already exist, more effort should be put into maintaining them active over time.

List of abbreviations

ESs	Ecosystem Services
EU	European Union
HELCOM	Helsinki Convention
IUCN	International Union for the Conservation of Nature
N2000	Natura 2000
NbS	Nature-based Solutions
NGO	Non-Governmental organisation
NRGF	Natural Resource Governance Framework
PA	Protected Area
PNRC	Camargue Regional Natural Park
RA	Restoration Actions
SNPN	National Society for the Protection of Nature
TdV	Tour du Valat

1 Background and objectives

This report is developed in the framework of **Work Package 5: Transformative governance for restoration upscaling**, which aims to identify the main critical governance barriers for large scale active/passive restoration (and conservation) in Pilot ecosystems, deriving guidance to produce a roadmap for upscaled restoration in other sites.

Natural resource governance can be defined as 'the norms, institutions and processes that determine how power and responsibilities over natural resources are exercised, how decisions are taken, and how citizens — including women, men, youth, Indigenous peoples and local communities — participate in and benefit from the management of natural resources' (Graham et al., 2003; Springer et al., 2021). Governance is critical for social equity, effectiveness and sustainability of natural resource use and conservation. Good governance benefits both people and nature, but the concept is still relatively poorly understood and addressed in natural resource management and conservation (Springer et al., 2021). The effectiveness and equity of natural resource governance processes determine both the extent to which ecosystems contribute to human well-being and the long-term prospects for sustainable conservation of nature. Securing rights and sharing power, responsibilities, and operational resources required to strengthen natural resource governance is a necessary foundation for a just world that values and conserves nature and contributes to the achievement of global sustainable development goals.

Lack of effective governance is one of the reasons why current restoration management efforts fall short of success and remain as "pilot" scale examples. Restoration programmes sometimes face strong difficulties because of political and institutional constraints, ineffective supply of governance and accountability, lack of incentives or conflicts between development/resource exploitation and natural conservation goals, among others. Moreover, governance is frequently limited by constantly changing political/economic conditions and climate.

Throughout the course of the project duration, Pilot Site governance structures will be analysed in different phases, the first of which is called the **Governance Framework Preparation Phase**. This phase evaluates the status quo of the governance framework as it is currently at each of the Pilot Sites. This assessment is the starting point for future planning and is designed to facilitate discussion and development moving forward.

For this report, we have examined the governance preconditions required for successful restoration, such as what governance structures are in place (if any), or the user groups affected by the restoration understand and support its goals/management. Present governance structures in the Pilots have been explored, identifying barriers such as fragmentation that hinder a transformative approach irreversibly committed to large scale restoration under climate change. It includes regulatory regimes/mandates, non-regulatory policy mandates and agreements at national/international levels. The governance status quo at each Pilot has been analysed in terms of governance, mapping the current governance baseline and how it is able to learn/evolve, meeting its role and responsibilities.

The mapping and planning stage of the current governance baseline was based on a rapid self-assessment tool designed to facilitate discussion and to identify the status quo, as a starting point for future planning. It includes a scorecard that reflects current governance ability to assess its capacity to adapt and to examine the evolving social, economic and cultural context.

The report and its Annexes represent the basis for developing an evolving planning tool that allows a more detailed analysis and prepares an action plan with indicators/barriers of progress, actions and next steps with priorities. The process will build upon existing knowledge and results from other Work Packages to create an enabling socioeconomic environment for transformative and restoration-supportive governance that better integrates policies and mechanisms for large scale coastal restoration.

2 Methodology

The evaluation of the Governance Framework Preparation Phase was completed through a self-assessment, which was done using an Excel table. The Self-Assessment Tool has been developed based on different resources, such as the IUCN NbS Self-Assessment Tool (IUCN, 2020), IUCN Natural Resources Governance Framework (Springer et al. 2021) and Wetland Governance Handbook (PAP/RAC, 2019), in order to reflect the integrated approach of the project.

The tool is based on a series of evaluation criteria divided in nine different categories to group the answers and facilitate the evaluation:

- Governance structure
- Inclusive and effective decision-making
- Recognition of tenure rights
- Diversity of knowledge, cultures and institutions
- Devolution
- Strategic vision, learning and direction
- Coordination and coherence
- Accountability
- Grievance and conflict resolution

The selected evaluation criteria were identified as key factors for assessing the governance status quo at pilot sites and were based in large part on the Natural Resource Governance Framework (NRGF), an IUCN knowledge resource tool that aims to provide a robust, inclusive and credible approach to assess and strengthen natural resource governance. The framework includes values, principles and criteria for equitable and effective governance - many of which can be applied to the context of large-scale coastal restoration - including inclusive decision-making, recognition and respect for tenure rights, accountability and access to justice and conflict resolution. Furthermore, and specifically pertinent to the REST-COAST pilot sites, it was imperative to identify current governance structures at each pilot in order to identify potential barriers, conflicts or synergies that may impede or catalyse a transformative approach and restoration upscaling. An additional key aspect to evaluate was the existing governance mechanisms as they pertain in particular to trans-boundary areas where shared governance regimes are in place.

The Governance of Wetlands in the Mediterranean Handbook and its Self-Assessment and Planning Tool was an additional important support tool to identify key evaluation criteria relevant to governance issues in wetlands and coastal areas of similar nature, allowing the development of a rapid assessment approach more suitable to the framework of the REST-COAST project. The use of drop-down menus and a traffic light system with supporting clarifying information for the evaluation of each criterion was included as a practical and easy-to-use method for completing the self-assessment at pilot sites, following existing examples such as the IUCN NbS Self-Assessment Tool. The objective of the Self-Assessment Tool and the selected criteria was to provide pilots with a broad enough evaluation of the overall governance at each site yet deliver it in a format that is intuitive, easy to use and complete.

The self-assessment table was structured in four tabs:

- **Welcome** tab: a general outline of the assessment tool and the basic information of the pilot site, as well as a short glossary of some of the key IUCN terminology used in the assessment.

- Detailed **Preparation Phase** Assessment tab: the pilot sites were asked to evaluate the criteria based on how well the current governance structures respond to them. The scoring was done using a drop-down menu based on a color scale ranging from **Red** (Very Weak) to **Dark Green** (Very Strong). Only one option per line was to be chosen. Information to clarify the criteria was included where it may have been necessary. For each criteria the pilot sites were asked to include:

    - Indicators of progress (e.g. regular meetings with governance bodies, annual reports, etc.)
    - Justification for why the score was chosen
    - Potential barriers to success (factors that may hinder the fulfilment of the criteria)
    - Actions/Next steps (what actionable steps will be taken to reach the criteria)

- **Summary** tab: Pilot sites were asked to summarise the score from the Detailed Preparation Phase Assessment tab by copying the scores using the dropdown menu in the previous tab. This summary was particularly important for additional future evaluations.

- **EXAMPLE** tab: an example to assist pilot sites in completing the Detailed **Preparation Phase Assessment.** The example aimed to guide the assessment and illustrate the scoring mechanism.

The table was shared with and completed during February 2022 by all REST-COAST pilot sites:

- **Wadden Sea** (Cross-border North Sea Core Pilot - Netherlands / Denmark / Germany)
- **Ebro Delta** (Regional Western Mediterranean Core Pilot - Spain)
- **Venice Lagoon** (Regional Central Mediterranean Core Pilot - Italy)
- **Vistula Lagoon** (Cross-border Baltic Sea Fellow Pilot - Poland/Russia)
- **Foros Bay** (Regional Black Sea Fellow Pilot - Bulgaria)
- **Rhône Delta** (Regional Central Mediterranean Fellow Pilot - France)
- **Sicily Med Island** (Regional Mediterranean Island Fellow Pilot - Italy)
- **Arcachon Bay** (Regional Atlantic Bay Fellow Pilot - France)
- **Nahal Dalia** (Regional Eastern Mediterranean Fellow Pilot -Israel)

The results from each pilot were analysed based on final scorecards in order to identify main strengths and weaknesses of the current governance systems for each pilot site. It is important to highlight that these assessments are not comparative among them, but rather represent individual situations for each of the sites in order to reflect their starting points and identify the best way forward.

Additional information was collected from the pilot sites about their current governance structures (entities relevant for restoration actions and their respective roles), main policies that are in place at each site and relevant for restoration actions, as well the main challenges and limiting factors that have been identified through previous projects and actions. Finally, a brief set of general recommendations was defined in order to facilitate the next steps in Work Package 5.

The summary and a short analysis of the results per each pilot site is presented in Chapter 3, while the complete self-assessment tables can be found in Annex II. The Excel template that was used to collect the data can be found as Annex I attached to this report.

3 Overview of the governance status quo

3.1 WADDEN SEA

Wadden Sea is a cross-border core Pilot Site located in the North Sea that comprises of 300.000 ha with intertidal seagrass and the German Jade, Weser, Elbe Ems-Dollard estuaries with 23.800 ha of saltmarshes and polders. It is shared between the Netherlands, Denmark and Germany. In the context of the REST-COAST project it is referred to a transboundary area between the Netherlands and Germany. The restoration goal is to revert the triple saltmarsh and summer polder area in natural state.

3.1.1 Governance structure and main actors

The restoration actions in the Wadden Sea Pilot Site is carried out in the framework of the Eems-Dollard Program 2050 (ED2050 partners), a joint effort of national and regional parties on the Dutch side of the site. The Program was prepared by the Province of Groningen, the Dutch Ministry of Infrastructure & Water Management and the Dutch Ministry of Management and Agriculture, Nature and Food Quality, in close collaboration with the Program 'Ecology and Economy in Balance'. The objective of the Program is to improve the ecological situation of the Eems-Dollard estuary.

The transboundary cooperation with Germany is taking shape (among other things) in the elaboration of an ecological sediment management strategy and the exchange of knowledge. In the next period, we will focus on making plans for the ecological sediment management. This consists of exploring the possibility of joint pilot projects and a joint approach for the sediment management.

The partners of ED2050 are as follows:

- Waterschap Hunze en Aa's (Hunze and Aa's Water Board)
- Waterschap Noorderzijlvest (Noorderzijlvest Water Board)
- Waddenfonds (the Wadden Fund)
- Samenwerkende Bedrijven Eemsdelta (Cooperating Companies of Eems Delta)
- LTO Noord (farmers' association)
- Dutch Ministry of Infrastructure and Water Management
- Dutch Ministry of Economic Affairs and Climate Policy
- Natuur en Milieufederatie Groningen (environmental organisation)
- Groningen Seaports
- Het Groninger Landschap
- Oldambt Municipality
- Eems Delta Municipality
- Het Hogeland Municipality
- Province of Groningen
- EcoShape Foundation

No additional information was provided on the governance structure for the site in the context of REST-COAST project.

3.1.2 Main policies

- Dutch National Climate Adaptation Strategy 2016

3.1.3 Summary of self-assessment results

Table 1 summarises the results of the self-assessment for this Pilot Site. The assessment was provided for the Dutch side of the site only. There is insufficient information on the context to be able to analyse the results properly, but the overall scores indicate a relatively good starting position for this Pilot Site in terms of governance. The transboundary cooperation with Germany is ongoing but some aspects are still in development phases, hence a slightly lower scoring in that section. The main strength for this Pilot Site is the awareness of the few critical issues that are still to be resolved, and ongoing engagement in resolving them.

Table 1. Summary of self-assessment results for Wadden Sea Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	-	4	3	4	1
Inclusive and effective decision-making	-	1	3	1	3
Recognition of tenure rights	-	1	2	1	-
Diversity of knowledge, cultures and institutions	-	-	0	2	-
Devolution	-	-	2	2	-
Strategic vision, learning and direction	-	-	0	3	-
Coordination and coherence	-	-	1	1	1
Accountability	-	-	0	2	-
Grievance and conflict resolution	-	-	2	0	-
TOTAL	0	6	13	16	5

3.1.4 Main governance challenges and limiting factors identified by the Pilot Site

- Lack of funding for structural nature restoration
- Absence of restoration as a formal task in existing policy documents

3.2 EBRO DELTA

Ebro Delta is a regional core pilot located in Spain. It presents 250 ha of wetlands, beaches and dunes. The goal is to restore coastal and river-to-coast connectivity, with emphasis of wetlands,

beaches, dunes and seagrass meadows with areas of about 2.000 ha. Restoration actions will take place at three different sites within the delta.

3.2.1 Governance structure and main actors

Table 2 summarises the entities that are involved in the management of Ebro Delta pilot site and/or are relevant for the implementation of restoration actions, as well as their roles. The map of the area is shown in Fig. 1.

Table 2. Main actors relevant for restoration actions at Ebro Delta Pilot Site

MAIN AUTHORITY/ORGANISATION	Level	Mandate
Ministry for the Ecological Transition and the Demographic Challenge	National	Authority on the natural resources
Centro de Estudios y Experimentación de Obras Públicas	National	Civil engineering research agency that conducts studies and research for the Ministry
Confederación Hidrográfica Ebro	Regional	Autonomous administration that manages and regulates the waters and draw the infrastructure of the aggravation
Department for Climate Action, Food and Rural Agenda of the Catalunya Government	Regional	Catalan authority on natural resources
The Water Agency (Agència Catalana de l'Aigua)	Regional	Monitors water bodies and assesses its quality
Ebro Delta Nature Park	Local	Authority to manage the natural resources and the protected area of the delta
SEO/BirdLife	National	Largest conservationist NGO in Spain; they run a program in the delta with conservation actions and some restoration work
Consensus Board for the Delta (Taula de Consens pel Delta)	Local	Includes the seven town councils of the delta plain and the irrigation communities of the delta, represent a joint voice on activities in the delta
Two communities of irrigation (Comunidad General de Regantes del Canal de la Derecha del Ebro and Comunitat de Regants – Sindicat Agricola de l'Ebre)	Local	Very powerful because they control the water flow on the delta plain and through the channels and the rice producers themselves (which occupy the vast majority of the delta and will be affected by project restoration actions)

Figure 1: The map of Ebro Delta area and the three pilot sites and main actors involved in the management of the area (source: Eurecat)

3.2.2 Main policies

- River Basin Management Plan (Plan para la protección del borde litoral del Delta del Ebro) – under revision
- Ebro Hydrological Plan (Plan Hidrológico del Ebro) – under revision
- Rural Development Programme for Catalonia 2014-2020
- European Maritime and Fisheries Fund
- Catalan Irrigation Plan (2008-2020)
- Strategic Plan for Agrifood Research, Innovation, and Knowledge Transfer in Catalonia (2013-2020)
- System of Natural Protected Areas of Catalonia
- Energy and Climate Change Plan (2012-2020)
- Catalan Strategy for Adapting to Climate Change, Horizon 2013-2020
- Climate Change Act
- Land use planning: Ebro Area Territorial Plans and Regional (Catalan) Territorial Plans

3.2.3 Summary of self-assessment results

Table 3 summarises the results of the self-assessment for this pilot site. In general, there is room for improvement in all categories, but particularly in clarifying the governance structure and the different roles, as well as lack harmonisation of measures across different policy documents relevant for the site. Unclear and sometimes conflicting actions between the national and the regional government seem to be the main obstacle for successful implementation of restoration projects. On the other hand, participatory processes are well developed thanks to previous experiences in

different projects, and these can provide a valuable lesson for improved implementation at this stage.

Table 3. Summary of self-assessment results for Ebro Delta Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	1	3	5	-	-
Inclusive and effective decision-making	-	1	1	5	1
Recognition of tenure rights	-	1	1	2	-
Diversity of knowledge, cultures and institutions	-	-	-	-	-
Devolution	-	1	3	-	-
Strategic vision, learning and direction	-	2	1	-	-
Coordination and coherence	-	2	1	-	-
Accountability	-	1	1	-	-
Grievance and conflict resolution	-	1	1	-	-
TOTAL	1	12	14	7	1

3.2.4 Main governance challenges and limiting factors identified by the pilot site

- Some actions delayed due to lack of coordination between governments of Spain and Catalonia
- Lack of support on reservoir sediment by-pass from some administrations
- Some stakeholders (public and private interests) opposing to some actions to be implemented in previous projects
- Current reservoir management dominated by hydroelectric production and irrigation
- Different views on interventions to prevent regression and subsidence (soft vs hard engineering)
- Conflict of interests when changing the use of land (e.g., rice field to lagoon) and expropriation
- Historical shortcomings in the relationships between stakeholders

3.3 VENICE LAGOON

Venice Lagoon is a regional core pilot site located in Venice, Italy and covers 6.000 ha of seagrass, about 6.800 ha of natural salt marshes and mudflats and 1.600 ha of morphological structures (i.e., artificial salt marshes and mudflats). The pilot action consists in a restoration intervention on already existing artificial saltmarshes aimed at accelerating the naturalisation processes for increasing priority habitats and biodiversity.

3.3.1 Governance structure and main actors

The legal framework of Venice Lagoon is defined by three legal systems:

1. Ordinary: application of EU Directives on various subjects (habitats, species, water quality, ports, mobility, use of sediments, etc), regulatory and policy instruments of regional, provincial and municipal competence;
2. Special: national interest of safeguarding Venice' ports and navigation, safety, water, air and sediment quality, cultural heritage and landscape;
3. Commissarial: dealing with different types of socio-economic, environmental and hydraulic emergencies due to the redevelopment of the site of national interest of Porto Marghera, sludge management, hydraulic risk in eaves settlements and water traffic.

Together, the regulations contribute to defining a "*Lagoon law*", with formal origins in the institution of the "Magistrato alle Acque di Venezia" (Venice Water Autority). At present, the laws do not provide a coherent planning and programming framework, nor do they propose co-planning devices or governance models. The governance of Venice lagoon has more than 500 years of history since il Magistrato alle Acque was founded in 1501.

Venice Lagoon is unique because there is a city located inside of it, so the governance is defined by an overlapping of three legal systems mentioned above. The "special" legal system sets different responsibilities of the different levels of administration (national and local) and requires their cooperation. After almost 50 years of its implementation, it is necessary to define a more coherent planning and programming framework.

The lagoon system is strongly conditioned by the recently installed and functioning MOSE system, a a flood barrier that protects the city of Venice from flooding.

Governance structure:

- 8 municipalities, 2 provinces and Metropolitan City of Venice.
- Venice municipality: responsible for urban restoration and social vitalization.
- Veneto Region: responsible for de-pollution of the drainage basin.
- Italian State: responsible for the physical safeguard from sea and rivers, port functioning.
- 1 Ministries & Local Administration Committee ("comitatone") – coordination among the main actors

A new Lagoon Authority is foreseen to be established in the upcoming period..

3.3.2 Main policies

- Art. 1 legge 171/1973 (defines the national interest for the Venice and its lagoon safeguard)
- The new Morphological Plan (adopted in December 2021)
- The new Sediment Management Protocol

- Number of plans at different national/regional scales: EIA, SEA, etc.
- MOSE - there is a relevant law on it that has been approved but is not yet implemented.

3.3.3 Summary of self-assessment results

Table 4 summarises the results of the self-assessment for this pilot site. There is vast experience in the implementation of restoration and Nature-based Solutions in the area, as well as a complex but quite clear governance approach, which is reflected in fairly good results for the governance structure and tenure rights category. In spite of this, the main weakness seems to be scarce involvement of different stakeholders in these processes and an overall lack of transparency, which resulted in a low score for several different categories.

Table 4. Summary of self-assessment results for Venice Lagoon Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	-	1	4	4	-
Inclusive and effective decision-making	-	5	3	1	-
Recognition of tenure rights	-	-	1	2	-
Diversity of knowledge, cultures and institutions	-	-	2	-	-
Devolution	-	1	2	1	-
Strategic vision, learning and direction	-	3	-	-	-
Coordination and coherence	-	-	3	-	-
Accountability	-	-	2	-	-
Grievance and conflict resolution	-	2	-	-	-
TOTAL	0	12	16	8	0

3.3.4 Main governance challenges and limiting factors identified by the pilot site

- Governance structure is clear and documented, but transparency could be improved.
- Delay in the definition of the Lagoon Authority.
- Number of plans at different national/regional scales.
- The new Morphological Plan has a 30-year horizon time; however, economic resources are not yet committed.
- The stakeholders' engagement and the participatory process is weak and must be improved. Stakeholders are not equally involved in the decision-making process.
- Funds are mostly directed to one or few institutions and long-term funding is not secured.
- Although decision-makers are supported by the scientific community, some stakeholders and local communities do not always agree with the decisions taken in the lagoon.
- Landscape constraint linked to cultural heritage and defined by the Superintendence of Fine Arts, that is extended to the whole lagoon.
- Slow governance operational procedures; difficulty to adapt to changing situations.
- Strategic vision of the governance not regularly monitored.
- Lack in the spread of knowledge.

- Lack of coordination between public institutions.
- Generally, a clear participatory process is missing.

3.4 VISTULA LAGOON

Vistula Lagoon is a cross-border fellow pilot site that features favourable habitats for endangered birds created by an artificial island (180 ha) and designated as a Natura 2000 site. The lagoon is shared between Poland (365 km^2), and Kaliningrad Oblast belonging to the Russian Federation (473 km^2). The restoration goal for this pilot is to add one new island to the Protected Area.

3.4.1 Governance structure and main actors

- The Maritime Office in Gdynia is a governmental agency exercising full jurisdiction in Polish coastal areas, including Vistula Lagoon. They are the main stakeholder in the area with competences to restrict access to the artificial island and institutional powers are necessary for project success. More specifically they:
  - exercise full jurisdiction on water and in the so-called technical belt
  (beach plus dunes);
  - exercise shared jurisdiction (with local authorities) in the so-called protection belt (ca. 2 km into land form the shore);

  They are highly skilled, with a good understanding of local problems and provide a platform for stakeholder consultations – mainly local authorities and main sectors, such as fisheries and tourism. They are required to respect all regulations applying to NATURA 2000 sites and implement them in their actions.

- Local Authorities: Communities of Frombork, Tolkmicko and Kadyny on the southern banks of the Lagoon, the city of Elbląg – the largest city with ca. 110000 inhabitants, communities of Kąty Rybackie and Krynica Morska on the Spit.

- The Polish Society for the Protection of Birds will be consulted during project implementation.

- Institute of Hydro-Engineering, Polish Academy of Sciences has been conducting multiple research efforts in the Lagoon over many years, incl. computations of hydro-, litho- and morphodynamic changes as a result of the construction of the passage through the barrier (the Spit), inventory of stakeholders and delineation of future development trajectories in past EU projects (FP7 Lagoons and Bonus EEIG BaltCoast).

The transboundary character of the area means the lagoon is subject to multiple issues and problems related to sustainable management, such as nutrient inputs and navigation permits. It is believed in Poland that substantial improvement with the relations with Russia will be best achieved using the overarching platforms, such as the HELCOM convention. However, the political atmosphere must improve before any serious actions are taken in such formats.

3.4.2 Main policies

The major policy aimed at economic reinvigoration of Vistula Lagoon is the construction of a crosscut through the barrier. It is believed that Elbląg harbour will take over the traffic of smaller vessels (100 m long, 4 m in drought, 20 m wide) to generate funds for the local economy and simultaneously relieve the handling capacity of major ports (Gdańsk, Gdynia) so that they can serve large vessels, mainly container carriers. The island is a by-product of this large hydraulic project, and it is intended to provide undisturbed habitat for targeted birds using the powers of the Maritime Office who will restrict unauthorized access to the island. Currently the area is economically degraded, which is one of the reasons the governance structure is so simple – the local economy is weak and will remain so without vast interventions of the central government.

3.4.3 Summary of self-assessment results

Table 5 summarises the results of the self-assessment for this pilot site. A relatively simple governance structure dominated by a single powerful actor with full jurisdiction is reflected in the scoring that highlights clear roles and policies in place. Tenure rights and competences are clear as well as the decision-making scale. Previous experiences in different projects implemented in the lagoon allowed for a detailed stakeholder mapping, however the participatory process can be improved and a certain reluctancy to actively engage seems to persist among different stakeholder groups.

Table 5. Summary of self-assessment results for Vistula Lagoon Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	-	3	4	2	3
Inclusive and effective decision-making	-	-	6	2	-
Recognition of tenure rights	-	-	1	2	1
Diversity of knowledge, cultures and institutions	-	-	-	2	-
Devolution	-	-	-	3	1
Strategic vision, learning and direction	-	-	1	2	-
Coordination and coherence	-	-	-	2	1
Accountability	-	-	1	-	1
Grievance and conflict resolution	-	-	2	-	-
TOTAL	0	3	15	15	7

3.4.4 Main governance challenges and limiting factors identified by the Pilot Site

In terms of effective decision making, the major challenge is that it's an economically degraded area so many social groups consist of less educated and/or elderly people, which have limited confidence in government administrations at all levels.

There is hardly any existing transboundary cooperation with Russia and a substantial lack of harmonisation of policies among the two countries in reference to the lagoon.

3.5 FOROS BAY

Foros Bay is a regional fellow Pilot Site that consists of 58 ha of seagrass meadows. The restoration goal is to restore 17 ha of seagrasses and more than 5 ha of NATURA 2000 Habitat 1170 Reefs with a community of *Ericaria sp.* (currently lost). The Pilot Site scheme is presented in Fig. 2.

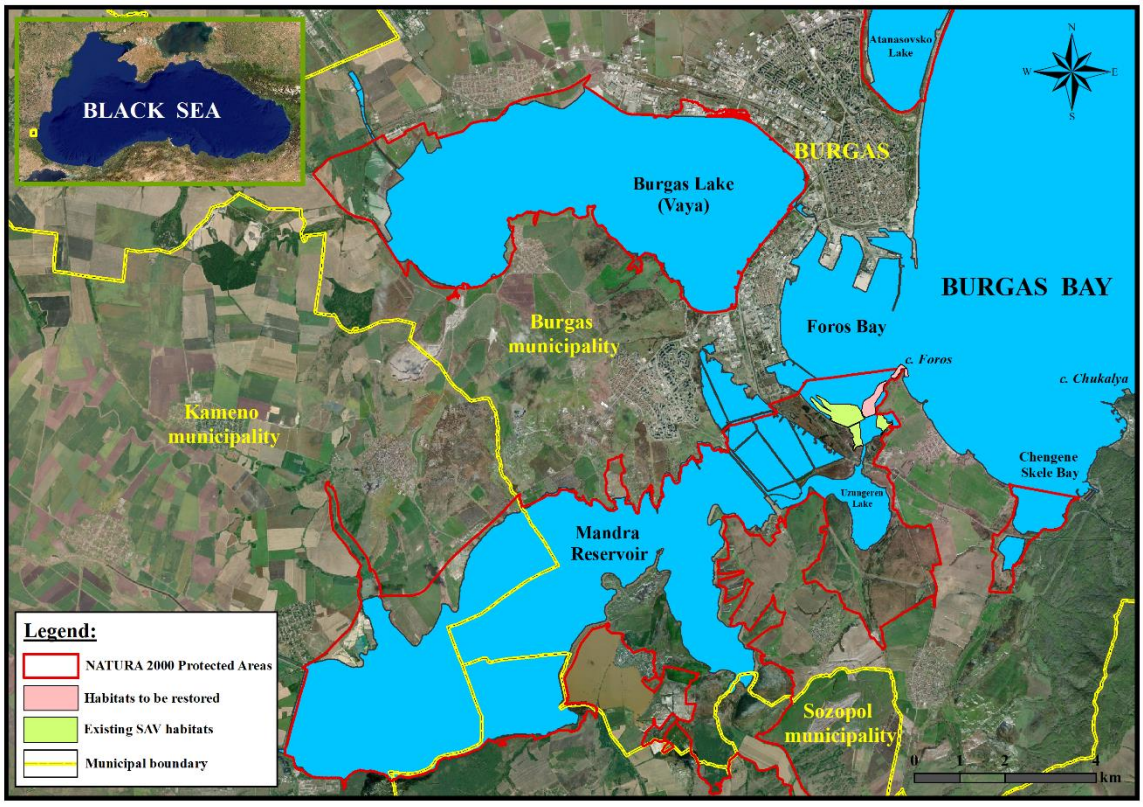

Figure 2. Foros Bay fellow Pilot Site location scheme in the Burgas Bay on the Bulgarian Black Sea coast (source: Institute of Oceanology)

3.5.1 Governance structure and main actors

Biodiversity protection *(water bodies and water ecosystems only)*

Bulgarian biodiversity protection and water management is organised at two levels: 1) national and 2) regional/basin/local (Table 6). The Ministry of Environment and Waters is the primary responsible institution, assisted by scientific advisory bodies known as the National Council for Biodiversity, Council of Scientists and National Water Council. Regional inspectorates of Environment and Waters and Black Sea Basin Directorate are basin-level and regional authorities. Other ministries are involved in the biodiversity protection process, depending on their competencies/expertise: The Ministry of Agriculture and its national and local bodies and two control and vessel monitoring centres in Burgas and Varna; the Ministry of Regional development and Public works, which is

responsible for Marine Spatial Plan Development, and its local authorities – the District Governors. Local Municipalities are also involved in this process. All of these institutions are given the opportunity to prepare and submit Protected Species Action Plans and Protected Areas Plans to the Minister of Environment and Waters.

The Minister of Environment and Waters may assign some management functions to Environmental non-governmental organisations (NGOs), such as the preparation of Protected Area (PA) management plans, monitoring, and restoration activities within PAs. The National Customs Agency is also involved in the process in terms of regulations governing the import and export of protected species from state territory.

Table 6. Competent authorities and organisations for biodiversity/nature protection in Bulgaria, as well as others with a potential impact on biodiversity/nature protection

MAIN AUTHORITY/ORGANISATION	Level	Mandate
Ministry of Environment and Waters	National	Governance of nature protection and management at a national level
Executive Environmental Agency	National	Management of nature protection and monitoring (laboratory analysis) of nature at a national level and at a regional level
Regional Inspectorate of Environment and Waters in Burgas	Regional	Management of nature protection at a regional level
Black Sea Basin Directorate	Basin	Integrated water management at a basin level (application of water basin management principles)
National Council of Biodiversity	National	Advisory body to the Minister of Environment and Waters
National Council of Waters	National	Advisory body to the Minister of Environment and Waters
Council of Scientists to the Minister	National	Advisory body to the Minister of Environment and Waters
Ministry of Food and Agriculture	National	Governance of the sustainable use of fish and non-fish biological resources and aquaculture
Executive Agency of Fishing and Aquaculture	National	Management of the sustainable use of fish and non-fish biological resources and aquaculture
Department “Fishing and control” Burgas	Regional	Management and control of fish and non-fish living resource recruitment; implementation/control of fishing and aquaculture regimes
Department “Fishing Vessel Monitoring Center” Varna	Regional	Maintenance of a satellite system for fishing vessel monitoring and a data base
Ministry of Regional Development and Public Works	National	Preparation of a National Maritime Spatial Plan
The District Governor of Burgas District	Regional	Maintenance of river and canal conductivity in territories outside the boundaries of the Municipalities; Burgas District might take the initiative to create a N2000 Management Plan for the N2000 zone and/or Species Action Plans

		within its boundaries (this function is not obligatory)
Burgas Municipality	Local	Burgas mayor might take the initiative to create a N2000 Management Plan for a N2000 zone and/or Species Action Plans (not mandatory); They might take an initiative to start construction of new marinas; might take the initiative to build new and/or reconstruct existing wastewater treatment plants
National Customs Agency	National	Governance and control of import/export of protected species
Maritime Administration	Regional	Carries out state environmental control over vessels visiting and/or operating in Bulgarian ports to prevent marine environment pollution from vessels. Elaborates expert statements on project general plans of ports for public transport. Participates in the development of investment project statements for the construction of new, widening, reconstruction, or rehabilitation of existing ports for public transportation, fishing and yachting marinas, specialized ports, and documents for the allocation of land and seawaters (coastal, internal, territorial marine areas, as well as navigation assurance areas) for coastal/marine construction
Port authorities		Operators and managers provide port services (anchoring, mooring, loading and unloading activities, accepting and recycling of wastes, etc.) that may have a negative impact on the port area and adjacent areas; they may have an initiative to begin construction of new and/or expanded remonstration and rehabilitation of port areas and equipment.
Burgas shipyard	Local	Carries out ship repair and metal scrap management
Lukoil Neftochim		Oil refinery in the vicinity of Foros Bay and Mandra lake
Center of Underwater Archeology	National/Regional	They do underwater archeological studies in the Bulgarian Black Sea. They have research interests in the area of Foros Bay.

Note: There is no duplication of the functions of the authorities but clear legislative boundaries between each of them instead. Some coverage may be present in the functions of laboratories, but duplication of activities is avoided as a whole (e.g. each laboratory has its own area of sampling, some analyses are done only by one laboratory for the whole country, redistribution of some samples, etc.).

Coastal zone management

In Bulgaria, management of the Black Sea coast is primarily a state matter and is under the authority of the Ministry of Regional Development and Public Works and Ministry of Tourism. The 2007 Act on the Black Sea Coast Spatial Development defines the territorial scope (hinterland and aquatic) of the Black Sea coast and coastline, rules and norms for their planning, use, building, and protection. It declares sand dunes, sea beaches and shore protection systems and facilities as public state property. Furthermore, the spatial development of the coast is based on concepts and schemes under the 2001 Spatial Development Act, the 2008 Regional Development Act and municipalities' general and detailed spatial development plans. Specialised schemes for the belonging water areas are developed within the Maritime Spatial Plan of Bulgaria (2021–2035). Since July 2019, the Ministry of Tourism is the responsible body to conduct procedures for awarding of beach concessions.

On the regional and local level, the bodies responsible for the management of the coastal area in Foros bay are regional administration of Burgas and the municipality of Burgas.

Table 7. Competent authorities and organizations for coastal zone management in Bulgaria

MAIN AUTHORITY/ORGANISATION	Level	Mandate
Ministry of Regional Development and Public Works	National	Governance and management of the Black Sea coast; Management and protection against hazards such as fluvial erosion and coastal abrasion, as well as financing of relevant measures for vulnerability decrease; Management and coordination of maritime spatial planning activities; Oversees the implementation of National Maritime Spatial Plan (2021–2035)
Ministry of Tourism	National	For beaches that do not fall within the territory of PAs or border PAs, the Ministry conducts procedures for awarding of beach concessions, as concessions serve to manage and maintain beaches and their adjacent water areas; manages beaches (and their adjacent water areas) that are not awarded a concession
Regional administration of Burgas	Regional	Management and implementation of the concepts and schemes under the 2001 Spatial Development Act, the 2008 Regional Development Act concerning regional spatial development plans of the Black Sea coast, acc. to norms and regulations of the 2008 Act on the Black Sea coast spatial development
Burgas Municipality	Local	Management and implementation of municipality general and detailed spatial development plans concerning zones "A" & "B" of the Black Sea coast, acc. to norms and regulations of the 2008 Act on the Black Sea coast spatial development, taking into account the National Maritime Spatial Plan for the water areas

For the restoration activities specifically, the main governmental and non-governmental actors to cooperate directly and coordinate project actions with are:

- District governance, Burgas Municipality and local consultancy & construction companies that have executed similar activities so far (canal/channel connectivity);
- Regional Inspectorate of Environment and Waters – Burgas, representing the Ministry of Environment and Waters;
- Maritime Administration – Burgas;
- available and willing NGOs (reintroduction of marine flora species and protection of birds).

3.5.2 Main policies

BIODIVERSITY PROTECTION *(water bodies and water ecosystems only)* and COASTAL ZONE MANAGEMENT

- 2002 Biodiversity Protection Act, last amendment November 2018
- 2002 Nature Protection Act, last amendment June 2022
- 1998 Protected Areas Act, last amendment June 2022
- 2000 Water Act, last amendment March 2022
- 2001 Fisheries and Aquaculture Act, last amendment June 2020
- 2000 Law on the Maritime Spaces, Inland Waterways and Ports of the Republic of Bulgaria, last amendment February 2021
- 2008 Act Black Sea Coast Spatial Development Act, last amendment February 2021
- 2001 Spatial Development Act, last amendment June 2021
- 2008 Regional Development Act, last amendment July 2022
- Maritime Spatial Plan of Bulgaria (2021–2035)
- Burgas Municipality general and detailed Spatial Development Plans Burgas District & Municipality Development Plans: basic strategic documents setting out the objectives and priorities for a sustainable and integrated social & economic development (updated every 7 years, revision of the plan, goals/tasks accomplishments are monitored at mid-term), last available plan (2014-2020)
- Preliminary Flood Hazard and Risk Assessment for river basins and Black Sea region (2011, 2021)
- River Basin & Flood Risk Management Plans: 2016-2021; 2022-2027 (updated every 6 years)
- 2019 National Climate Change Adaptation Strategy and Action Plan (up to 2030): adopted at a sectoral rather than at a regional level
- 2014–2020 Municipality Development Plan: evaluates the environmental state & protection and set goals/priorities/measures for air/water/soil quality, noise reduction, waste management, flood and erosion risks, BDV conservation and protected areas, rehabilitation of degraded areas, sustainable management of natural resources, etc.
- Biodiversity, Protected areas, NATURA 2000: the Foros Bay and the adjacent wetlands are protected under the NATURA 2000 network for both Habitat and Bird Directives; those are the protected zones “Mandra-Poda” and “Lake Burgas”. They are included in

the National plan to preserve the most significant wetlands in Bulgaria (2013 – 2022). The plan was prepared by the NGO "Bulgarian society for the protection of birds“ and is still on-going. Its implementation is based on non-governmental funding.

3.5.3 Summary of self-assessment results

Table 8 summarises the results of the self-assessment for this Pilot Site. In general, the starting point for governance transformation at this site seems to be positive, with solid scores for most categories, including a clear strategic vision for the area and well-defined tenure rights. Coordination among the main actors is good but there is still room for improvement, while a relatively low scoring for inclusive and participatory aspects, including the level of understanding of restoration benefits by different stakeholders, indicate this might be an aspect to focus on particularly.

Table 8. Summary of self-assessment results for Foros Bay Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	-	2	4	3	-
Inclusive and effective decision-making	-	3	3	2	-
Recognition of tenure rights	-	-	-	2	2
Diversity of knowledge, cultures and institutions	-	-	-	1	1
Devolution	-	-	-	3	1
Strategic vision, learning and direction	-	-	-	3	-
Coordination and coherence	-	-	2	1	-
Accountability	-	1	1	-	-
Grievance and conflict resolution	-	-	1	-	-
TOTAL	0	6	11	15	4

3.5.4 Main governance challenges and limiting factors identified by the Pilot Site

- Communication and coordination between the institutions and all other actors (e.g. scientists, NGOs and local communities, etc.) needs further improvement
- Regional/local authorities suffer low administrative capacities, moderate competence and irregular and insufficient funding to carry out sustainable management, which hinders long-term management and monitoring activities. The NGOs rely predominantly on European-funded projects to manage activities they perform in the protected areas
- Stakeholders’ awareness & support for NbS and goals of restoration actions (RA)
- Availability of core resources for long-term management of RA
- Inequality in power dynamics of decision-making
- Currently unstable political situation in Bulgaria may lead to some uncertainties related to practical implementation of RA
- Absence of transparency with regard to accountability in RA disruption.

3.6 RHÔNE DELTA

The site of the Former Saltworks, located in the south-eastern part of the Rhone delta, is an area of 6527 ha which was acquired by the Conservatoire du littoral (French "Coastal Protection Agency") between 2008 and 2012. Until 2008, and its sale for industrial and economic reasons, for about 50 years, this site was devoted to industrial salt production. The acquisition of this site by the Conservatoire du littoral involved changes in management, compared to that implemented in an industrial salt production model. It was thus decided since 2010 to implement a realignment strategy on the site:

- The sea-dikes protection of the former salt production site is no longer maintained, and the protection effort is now focused on a maintained dike which is located about 7 km inland, resulting in a new 4600 ha "Climate change buffer area" between the former and the inland dikes.
- Several works have been carried out (opening of dikes, dredging works, etc.) to create connections between the various former salt production basins.
- Hydraulic works have reconnected the site to a nearby agricultural catchment, itself irrigated from the Rhone river, allowing new fresh water flows in the site.

In the framework of REST-COAST, the objective is to restore 300 ha of coastal lagoons, and 60 ha of Mediterranean halophilous scrubs/Salicornia and other annuals colonising restored mud/sand. It is also expected that with the non-maintenance of the historic seadikes protection and the re-establishment of natural coastal dynamics, new beach areas will appear in the south of the site (overwash processes).

3.6.1 Governance structure and main actors

The site is owned by the French state, the public organisation Conservatoire du Littoral (French Coastal Protection Agency). They have entrusted the management of the site to three entities: Camargue Regional Natural Park (PNRC), the National Society for the Protection of Nature (SNPN) and Tour du Valat (TdV) (Fig. 3).

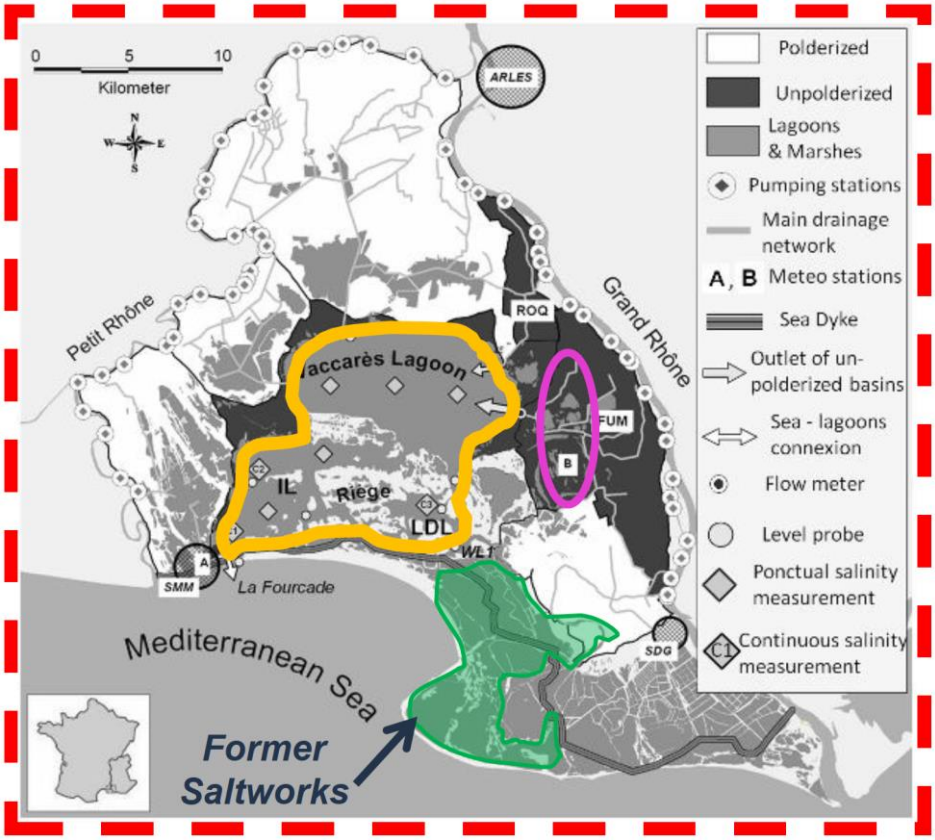

Figure 3. Map of the Rhône Delta pilot site and spatial competencies of the three managing entities (source: Tour du Valat)

The management of the site is carried out through three main committees:

- Board of Directors
  Meets at least once a year at the initiative of the Conservatoire du Littoral. Their mission is to discuss and direct the strategic issues of management and to arbitrate any difficulties encountered by managers on a daily basis.

  They work upstream of validation by the Management Committee. The members of the board include representatives of Conservatoire du Littoral and the directors of the co-management structures (PNRC, SNPN, TDV). Additionally, other institutional entities may be invited to the meetings depending on the agenda.

- Management Committee
  Its missions are to draw up a management assessment for the past year, on the basis of an activity report produced by the three co-managers each year; ensure the coherence of the actions undertaken by the different partners; propose any measures to improve the management of the site and its development; validate the annual program of actions and

developments to be carried out and analyse the qualitative and quantitative aspects of the use of the site.

Members:

- Conservatoire du Littoral (Owner of the Former Saltworks)
- 3 co-management organisations of the Former Saltworks: Tour du Valat, Parc Naturel Régional de Camargue, Société Nationale de Protection de la Nature
- Users under agreement: Hunting Office, fishers, nature guides, bull breeders
- Salt production company
- Representatives of the cities of Arles and Saintes-Maries-de-la-Mer
- Financial partners: department, region, water agency
- Several services of the French State, in particular "SYMADREM", in charge of dyke management in the Rhone delta
- Tourist office
- Representative associations or users (kite-surfing schools, etc.)
- Local inhabitants' associations

- Technical Committee (or Monitoring Committee)

  Meets every month or every two months. Its missions are to ensure the day-to-day management of the site and provide technical advice on possible medium and long-term management directions to the second committee; carry out technical studies for the site or ensure the regular follow-up of studies carried out by external providers.

  Members:

  - Representatives of the Conservatoire du littoral of the co-management structures (PNRC, SNPN, TDV)
  - Mainly engineers, technicians, researchers, project managers

3.6.2 Main policies

- EU Common Agricultural Policy
- EU Water Framework Directive
- Objectives of Natura 2000 sites
- National strategy for integrated coastline management
- Intervention strategy of the "Conservatoire du littoral" 2015 – 2050
- Objectives of the Rhone-Mediterranean-Corsica Water Development and Management Plan Management plan for migratory fish in the Rhône-Mediterranean basin 2016 - 2021 (PLAGEPOMI)
- Regional ecological coherence scheme
- Management strategy for the public maritime domain of the Bouches du Rhône (French department)
- Coastal strategy of SYMADREM, the public organisation responsible for the maintenance of the Rhone River dykes and the 7 km inland dyke in the Fellow Pilot on which the protection effort is now focused.
- Charter of the Camargue Regional Nature Park

3.6.3 Summary of self-assessment results

Table 9 summarises the results of the self-assessment for this pilot site. The governance structure appears as a strength for this pilot, as it presents good scores due to well-defined ownership of the site and an established co-management scheme, coordinated through formal processes with the three committees. Some shortcomings seem to be present in inclusive and participatory processes, and a lack of trust towards the managers at local level has been identified. Conflict resolutions and accountability mechanisms do not exist, so this will require concrete improvement steps to be taken.

Table 9. Summary of self-assessment results for Rhône Delta Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	-	1	1	6	1
Inclusive and effective decision-making	-	2	3	3	-
Recognition of tenure rights	-	-	-	1	3
Diversity of knowledge, cultures and institutions	-	-	-	2	-
Devolution	-	-	1	2	1
Strategic vision, learning and direction	1	-	1	1	-
Coordination and coherence	-	-	1	1	1
Accountability	1	1	-	-	-
Grievance and conflict resolution	1	-	1	-	-
TOTAL	3	4	8	16	6

3.6.4 Main governance challenges and limiting factors identified by the Pilot Site

- Decrease in public funding
- Lack of knowledge of the consequences and benefits of restoration, especially for flood risk
- Local communication could be improved

3.7 SICILY MED ISLAND

Sicily Mediterranean Island regional fellow Pilot Site is located in southern Italy, in the south-eastern part of Sicily and consists of 2250 ha of salt marshes coastal fringe, with 250 ha already restored. The restoration goal is to restore additional 320 ha. Restoration actions will take place in the Cuba-Longarini pilot area. The site is characterized by two main lagoons in close connection to the neighbouring narrow coastal fringe. The lagoons are surrounded by saltmarshes, which in turn are in close contact with greenhouses fields. Between the lagoons and the beach lies an urbanized touristic area, with high seasonal excursion of population during the summer.

The ecological status of a second area, the Vendicari lagoons, an already restored natural reserve where habitat maintenance and preservation is currently ongoing, will be used as a benchmark for the performance of the restoration actions in the Cuba-Longarini lagoons.

3.7.1 Governance structure and main actors

Public bodies

- Water District Authority of the Sicilian Region
  Administrates water bodies from source to the estuary, in terms of quality and use of resource.

- Municipalities of Ispica and Pachino
  Responsible for all administrative functions concerning the population and the municipal territory in the sectors of social services, planning, land use and economic development in the South-East of Sicily area. The Cuba-Longarini lagoon area lies between these two municipalities.

- Government Commissioner against hydro-geologic hazard
  Government Commissioner for the contrast of hydrogeological instability and the implementation of priority and urgent interventions to mitigate hydrogeological risk in the Sicilian Region

- ARPA – MARE
  Regional environmental protection agency to monitor and protect aquatic ecosystems

- Sicilian Region - Assessorato del Territorio e dell'Ambiente – Dipartimento dell'Ambiente
  Responsible for administrative functions of environmental matters on a regional scale.

- Catania University
  In charge of the CORE-PLAT building, manages the survey and monitoring plan, carry out research and disseminate results.

- Civil protection
  Governmental aid in preparation for (or immediate aftermath) of natural or anthropic disaster

Site managers

- Stiftung Pro Artenvielfalt
  German Private pro-biodiversity foundation that acquired Cuba-Longarini lagoons to operate restoration measures to improve habitat quality and biodiversity.

- Sicilian Region - Servizio 2 – Natural reserves, protected areas and environmental tourism

Regional institution in charge of the maintenance and protection of Natural reserve of Vendicari lagoons.

Local organizations

- Environmental and nature conservation grass-root associations
- Farmers
- Tourist operators

3.7.2 Main policies

- D.Lgs. 152/2006 (Italian law for enacting the Water Directive 2000/60/EC)
- D.Lgs. 49/2010 (Italian law for enacting the Flood Directive 2007/60/EC) - 9th of February 2022: modification of the art. 9 and art. 41 of the Italian Constitution Law that protect ecosystems and biodiversity
- Regional Law no. 98/1981 that establish the Natural Oriented Reserve of Vendicari
- Habitat Directive 1992/43/EC (Natura 2000 site)
- Screening of the Environmental Impact Assessment ex art. 5 del D.P.R. 357/97 smi e art. 4 D.A. 30/3/2007 of restoration actions in the Cuba-Longarini lagoons
- D.D.G. n. 375 del 24.05.2019 – Vendicari lagoons management plan

3.7.3 Summary of self-assessment results

Table 10 summarises the results of the self-assessment for this Pilot Site. In general, significant improvements to the governance seem to be necessary for this site. Most criteria were evaluated with low scores, reflecting different shortcomings, such as the lack of strategic vision on restoration, poor coordination between different entities involved in the management of the two sites. The participatory processes seem to be limited and dominated by powerful sectoral lobbies. However, management plans for the sites and the restored areas already exist, and this can be a good starting framework to plan for improvements.

Table 10. Summary of self-assessment results for Sicily Med Island Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	2	3	3	1	-
Inclusive and effective decision-making	2	3	1	1	1
Recognition of tenure rights	-	3	1	-	-
Diversity of knowledge, cultures and institutions	2	-	-	-	-
Devolution	1	2	-	1	-
Strategic vision, learning and direction	3	-	-	-	-
Coordination and coherence	-	3	-	-	-
Accountability	-	2	-	-	-
Grievance and conflict resolution	-	-	1	1	-
TOTAL	10	16	6	4	1

3.7.4 Main governance challenges and limiting factors identified by the Pilot Site

- The different public departments involved in the management and protection of natural resources need capacity building and coordination
- Though a general legislation framework for restoration exists, local communities have fight against establishment of a natural reserve area at the fellow Pilot (municipality and farmers)
- Standardised assessment procedures for governance performance are not in place, at least concerning public governance. Periodic assessment are planned for specific projects (e.g.Interreg/LIFEprojects)
- The decision-making process in the area is dominated by a powerful farmer consortium who makes use of intensive agricultural techniques
- The level of understanding and support is variable among decision makers (poor knowledge on the value of NBS) and specific stakeholders (e.g., birdwatchers and beachgoers appreciate the effects of coastal restoration, while local farmers and hunters tend to oppose to it)
- Scarce cooperation between government and stakeholders at the lowest possible scale
- No specific strategic vision on coastal restoration/climate change at regional/local scale
- Lack of coordination between Regional Departments and Agencies in charge of the different sectors within governance actions

3.8 ARCACHON BAY

Arcachon Bay regional fellow Pilot Site is located in the western coast of France and comprises several ha of *Zostera sp.*beds (a seagrass species that has lost ≈ 50% cover in the last 30 years: *Zostera noltei* cover rate has decreased of about 45% between 1989 and 2012, while *Zostera marina* has suffered a decline of 84% between 1989 and 2016). The restoration goal is to settle a large-scale recovery process for these seagrass species, and to replicate over Arcachon Bay (7000 ha) and other sites.

3.8.1 Governance structure and main actors

Table 11 summarises the main actors involved in Arcachon Bay governance, with their respective mandates/areas of action.

Table 11. Main actors relevant for restoration actions at Arcachon Bay Pilot Site

MAIN AUTHORITY/ORGANISATION	Level	Mandate
SIBA intercommunal syndicate of Arcachon Bay	Local	Wastewater; Dredging and dredged sediment management; Inundation and submersion risk; GEMAPI competence; Contaminant control; Water quality; Improve navigation processes
Marine Natural Park of Arcachon Bay	Local	Preservation and restoration of seagrass; Oyster wasteland rehabilitation; Species cartography; Better understand the

		ecosystem; Protection of the ecosystem with sworn agent; Contribute de the development of durable activities
Regional oyster farming committee	Regional	Coordination of the development of the sector: support for installation, training, security, business investment, monitoring of the environment and products, management of shells; Structuring, defending the general interests of oyster farmers and supporting shellfish farming companies within its territorial jurisdiction
French Research Institute for Exploitation of the Sea	National	Research: seagrass, morphology, shellfish, long term turbidity and water quality monitoring, oyster analyses to authorize sale; Advisory role
Marine station of Bordeaux university	Local	Research: benthic communities, saltmarshes, contaminant, shellfish
Water agency	National	Financer; Watershed management
Natural marine Reserve of Banc d'Arguin	Local	The Banc d'Arguin National Nature Reserve encompasses all the sandy islets that form at the entrance to the Bay of Arcachon. They deal with the management of local NGO for environment protection, settlement of environmental actions at local scale and gathering of knowledge and data to characterize local biodiversity.
Region of Nouvelle Aquitaine	Regional	Institution in charge of the management of the administrative region of Nouvelle Aquitaine. Regarding Arcachon bay and REST-COAST, they mostly deal with land-use planning and ecological/environmental transition. They are involved in the design of large scale and long-term strategies, and in the funding of regional actions.
Department of Gironde	Local	This institution is acting as a sub-regional institution dealing with the whole scope of area governance issues. They are involved in strategic planning, water resource, environment protection etc., and support local governance units to settle and fund actions that meet their strategy in terms of biodiversity or risk mitigation for instance.
Local State entities: DREAL & DDTM	Regional	They deal with administrative and environmental rules, making sure that

	actions and strategies art regional scale are consistent with European and national regulatory framework, and delivering authorizations for field and study works.

To summarize, Arcachon Bay Fellow pilots involves several stakeholders through REST-COAST, at different levels of commitment:

- 10 municipalities, 1 department and 1 province as local and regional governance units
- 2 marine protected area managers
- 1 regional committee representing one of the key economic activities of the area
- 1 scientific stakeholder with the main knowledge of local ecosystems
- 1 national funding agency on water and environment topics
- Local representation of the State, as regulating entities

The main actors' implication in the REST-COAST project is presented in Table 12.

Table 12. Arcachon Bay Main actors' involvement in the REST-COAST project

Entity	Responsible	Accountable	Consulted	Informed
Natural Marine Park of Arcachon basin		X		
FREMER – LER-AR		X		
Intercommunal Syndicate of Arcachon Basin			X	
Regional Oyster Committee			X	
Bordeaux University – Marine Station of Arcachon Bay				X
Municipalities				X
Department				X
New Aquitaine Region			X	
Adour-Garonne Water Agency			X	
State (Maritime Affairs, DREAL; DDTM)			X	
SEABOOST/EGIS	X			

3.8.2 Main policies

- Directive Cadre Stratégique du Milieu Marin
  This directive details the European and French targets and rules in terms of environmental status, and defines how to measure the ecological status, what are the objectives to reach and the protocols to settle.

- Directive Cadre sur l'Eau:
  This European directive was adapted to the French context in 2004, in order to reach the following objectives:

- the non-degradation of resources and environment;
- the good status of water bodies, except for justified derogations;
- the reduction of pollution linked to substances;
- the respect of standards in protected areas

- Management plan of the Marine Natural Park of Arcachon Bay: https://parc-marin-bassin-arcachon.fr/documentation/plan-de-gestion-2017-2032-du-parc-naturel-marin

- Syndicat Intercommunal du Bassin d'Arcachon (SIBA) tools:

3.8.3 Summary of self-assessment results

Table 13 summarises the results of the self-assessment for this Pilot Site. These reflect a good level of involvement of stakeholders, but at the same time, the lack of clarity on responsibilities and roles when actions on the ground are carried out, as well as unequal influence of different groups in the decision-making processes. Improvements are needed for better coordination between different entities and coherence among policy documents.

Table 13. Summary of self-assessment results for Arcachon Bay Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	0	2	3	3	1
Inclusive and effective decision-making	0	4	1	3	0
Recognition of tenure rights	0	1	0	2	1
Diversity of knowledge, cultures and institutions	0	0	1	1	0
Devolution	0	1	1	2	0
Strategic vision, learning and direction	0	1	1	0	1
Coordination and coherence	0	1	0	2	0
Accountability	0	0	0	0	2
Grievance and conflict resolution	0	1	1	0	0
TOTAL	0	11	8	13	5

3.8.4 Main governance challenges and limiting factors identified by the Pilot Site

- Increase of dredging needs related to seagrass decline
- Conflict of use, specifically related to the channels' edges. The oyster farmers consider that there is food competition between wild and cultured oyster. No differentiation is considered between wasted land and wild oysters – the result is the destruction of wasted land and wild oyster by irreversible mechanical actions on channels edges (named "Wasted land Rehabilitation" in the Natural Marine Park management plan).
- Restoration action responsibilities not clearly defined – pending questions:
  - who finances and manages the actions?
  - what about the distribution of restoration profits?

- Some conflict between entities:
  - National Marine Park VS IFREMER: Science actions are not taking together leading
  - National Marine Park VS SIBA: lack of communication
  - Regional oyster comity on the side-lines: It will not be easy to change their thought

3.9 NAHAL DALIA

Nahal Dalia is a regional fellow Pilot Site is located in Israel and includes coastal marshland and islands for nesting birds. The restoration goal is to restore 30 ha.

3.9.1 Governance structure and main actors

Table 14 shows the main actors involved in Nahal Dalia Pilot Site governance, with their respective mandates/areas of action and their relevance in the REST-COAST project.

Table 14. Main actors relevant for restoration actions at Nahal Dalia Pilot Site and their involvement in the REST-COAST project restoration actions

MAIN AUTHORITY/ORGANISATION	Level	Mandate	Involvement	Key decision makers	Organisations with land management and natural resource management responsibilities
Kibbutz Ma'ayan Tzvi	Local	Landowners (long- term lease) and managers	High. Part of the steering committee	X	
Kibutz Maagan Michael	Local	Influential neighbors	Medium / Low		
Dor	Local	Influential neighbors. There's potential for planning collaboration	Medium / Low		
Hof Hacarmel Regional Council	Local	Local municipality	High. Part of the steering committee		
Carmel Drainage and Streams authority	Regional	Government- In charge of drainage and surface water management on a broader scope	High. Part of the steering committee	X	X
Hof Ha-Carmel Agricultural Water Association	Regional	Dalia river Surface Water consumer. Part of the steering committee	High. Part of the steering committee	X	X (responsibility for the beach)
Israel Nature and Parks authority	National	Governmental Authority in charge of nature reserves and national parks including	Project initiators. Leading the steering committee	X	X

		where restoration is about to take place		
National Water authority	National	Executer of water policies and surface water / Ground water abstraction quotas. Part of the steering committee	High	X
Ministry of Agriculture	National	Regulates fishery activities	Low	
The Ministry of Environmental Protection	National	Regulates the influence of the environment on people. i.e: air, noise and light pollution In charge on fishery used water emission quota and timing to the sea Regulates fishery activities / Reform	Low	
The Ministry of Tourism		Interested in tourism development	Low	
Israel Antiques Authority	National	Promotion of work in the field requires Work permits	High	

Land/sea/wetland and natural resource users:

- Mayan Tzvi
- Local water association
- Governmental Water authority
- Recreational Fishing Park
- Beach visitors and swimmers
- Birdwatchers
- Hikers/tourists

Landowners:

- INPA (National resource)
- Ma'ayan Tzvi (fishery landowners)
- Israel Land Authority

3.9.2 Main policies

- "Nature's rights for water"- policy and law
- Fishery's reform
- Nature reserves and national parks law
- Planning and Building Act (tourism master plan)

Relevant policy considerations:

- Nature's right for water principle is recognised in primary legislation
- Fishery reform postulates that fisheries must treat their effluents, and discharge only during a three-month period (National regulations)
- Declaration for private producers to sell water to national water company: Producers can sell water to national water company and develop more production tools (Declaration and monetary incentives)

3.9.3 Summary of self-assessment results

Table 15 summarises the results of the self-assessment for this Pilot Site. There is insufficient information on the context to be able to analyse the results, but the scores themselves do reflect significant governance shortcomings in this site. More information is needed to identify critical entry points for future improvement actions. In any case, consultations with other Pilot Sites more experienced in restoration actions might provide a useful framework to start with.

Table 15. Summary of self-assessment results for Nahal Dalia Pilot Site

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	6	1	1	1	-
Inclusive and effective decision-making	4	1	1	-	-
Recognition of tenure rights	4	-	-	-	-
Diversity of knowledge, cultures and institutions					
Devolution	-	-	3	1	-
Strategic vision, learning and direction	3	-	-	-	-
Coordination and coherence	3	-	-	-	-
Accountability	2	-	-	-	-
Grievance and conflict resolution	2	-	-	-	-
TOTAL	24	2	5	2	0

3.9.4 Main governance challenges and limiting factors identified by the Pilot Site

- Unclear governance structure, not coordinated across sectors
- The Governmental water authority encourages water utilities to increase water production (through abstraction and desalinization) in the region. Intensified groundwater abstraction in the area leads to reduced water level and salinization and thus negatively impacts the area's natural habitat.
- The governmental "Water Quality Reform in Fisheries" fails to consider the Nahal Dalia nature reserve as a protected area and ignored its ecologic needs.

4 Main findings and general recommendations

The summary of the self-assessment scorings of all Pilot Sites are shown in Table 16.

Table 16. Self-assessment scores for all Pilot Sites

Category	Very weak	Weak	Moderate	Strong	Very Strong
Governance structure	11	20	29	23	6
Inclusive and effective decision-making	6	16	22	18	5
Recognition of tenure rights	4	6	6	11	7
Diversity of knowledge, cultures and institutions	2	0	4	9	1
Devolution	1	4	11	17	3
Strategic vision, learning and direction	7	6	3	6	3
Coordination and coherence	4	7	8	5	2
Accountability	3	5	4	3	3
Grievance and conflict resolution	3	3	8	1	0

The results have shown that the governance at REST-COAST Pilot Sites is often hindered by the lack of transparency, unresolved conflicts and unclear mandates. Participatory processes at different levels are generally scarce, mostly project-based and insufficient to consider them inclusive and comprehensive. Different economic sectors often have a strong influence over what happens at the site and local communities show low levels of confidence towards public administrations in charge. Numerous, often unlinked strategies and plans are elaborated by different institutions and there are limited efforts to harmonise them. In general, there is a low awareness among the local community and other stakeholders of the benefits of restoration and Nature-based Solutions.

An important strength of several project sites is the vast amount of experience in different site actions, including restoration, and these are very useful lessons for the implementation of REST-COAST and finding ways around governance shortcomings. The stakeholders have been mostly identified, but most Pilots have recognised the need to change and improve the approach to their more effective and equitable engagement.

Some limitations of the self-assessment approach undertaken for this task were identified throughout the process. The criteria that were used to evaluate the governance status quo were at times quite complex and required good knowledge on decision-making processes and policies related to the site. It was recommended that the Pilot Sites work in collaboration with relevant authorities to provide all the information and decide on the scoring, however this might have not been possible or feasible in all cases, which might have resulted in incomplete or biased results of the self-assessment process.

Based on the results, a series of recommendations for REST-COAST pilot actions were developed:

- Clarify mandates and competencies with regards to restoration actions at your sites and work towards establishing mechanisms to overcome the lack of coordination at different governance levels and increase mutual understanding of priorities. Once you create the conditions for improved collaboration of all main stakeholders at the sites by establishing the CORE-PLATs, work to ensure the sustainability and continuity of this mechanism.
- When designing participatory activities, consider local realities and cultural context, as well as the need to balance your audience in terms of gender and representativity of minority groups (if relevant at your site).
- There is a clear need to increase awareness of restoration and NbS benefits among the local communities. Take action by planning and organising different events, roundtables and educational activities, as well as by creating and disseminating communication materials.
- Many sectors have a stake at your restoration site and have possibly been making active use of the natural resources and ecosystem services of the site and its surroundings for a long time. Advocate with them to apply more sustainable approaches in their actions at the site by showcasing the overall long-term benefits. Make use of good practice examples from around the EU and involve the scientific community in dissemination actions.
- As funding is a major constraint for large scale restoration, it could be worth the effort to gain the interest and commitment of sectorial actors as they might have more substantial resources available. Common initiatives, such joint package development, could increase the commitment if it shows economic benefits in the end.
- Make sure you are familiar with all policies that are relevant for restoration actions at your sites and identify entry points for restoration valorization, especially in reference to soft measures and nature-based solutions, as well for funding opportunities. For instance, the links with national and regional climate change plans and programs, as well as the EU Restoration Law, should be clearly and properly emphasized so that the contribution of your restoration action can be quantified and used as an argument for the need of long-term and large-scale restoration actions and improved governance at the site.
- For transboundary sites, there should be improved mechanisms of cooperation and harmonization of processes. Work towards establishing a mechanism, such as creating partnerships, that will allow designing and implementing joint actions, practicing learning exchanges and highlighting opportunities for mutual benefit and increased value for the site. Where these mechanisms already exist, more efforts should be put into maintaining them active over time and keeping the partners updated on any changes in policies or governance structure that might affect joint actions.
- Learn from and exchange with your REST-COAST peers, as there is a significant amount of experience and lessons learned already among the project partners, and while some issues and challenges might be specific for your site, many others are common and might have already been addressed effectively.

5 Summary of next steps and actions identified by Pilot Sites

PILOT SITE		NEXT STEPS AND ACTIONS
Wadden Sea	Transboundary core pilot	No information was provided by the Pilot Site.
Ebro Delta	Regional core pilot	Explore the opportunities to improve the coordination and consensus among different governance actors at national and regional scale to be able to identify clearer pathways for future decision-making; Identify expectations and "material topics" in the position of each relevant stakeholder
Venice Lagoon	Regional core pilot	Analyse overlapping of the aims of existing policies and the project; Analyse previous restoration activities at the lagoon level and plan an upscaling plan to spread them in other parts of the pilot case study; Improve the dialog among scientific community, local stakeholders and governance actors; Make the project reports available and improve their dissemination; Complete and update the list of stakeholders in the pilot; Increase the involvement of local communities and adopt a bottom-up approach in the identification of problems
Vistula Lagoon	Transboundary fellow pilot	Advocate to improve transparency of management practices and actions on all administrative levels; Advocate for the Maritime Office to hold more intense consultations with stakeholders having divergent interests; Transfer knowledge and increase awareness about long-term benefits of introducing NbS; and implementing biodiversity restoration; Make patient and persistent efforts aimed at unblocking the confidence of many social groups; Advocate for transparent and unbiased access to various sources of information
Foros Bay	Regional fellow pilot	Coordinate activities with a broad spectrum of parties having a stake on site; Improve communication on the restoration process, its requirements and possible failures to environmental managers and District Governor; Conduct further stakeholders mapping; Organise meetings for project presentation and disseminate questionaries concerning restoration goals and their importance
Rhône Delta	Regional fellow pilot	Contribute to the definition and implementation of a new management plan for the site, which would notably better integrate the opinion of local populations (collaboration with the H2020 project WaterLANDS)
Sicily Med Island	Regional fellow pilot	Make efforts to engage different stakeholders through meetings to raise awareness on climate change threats and NBS potentials; Conduct informative actions and involve farmers and local municipalities; Attempt to interact with decision-makers at regional and local scale to improve awareness
Arcachon Bay	Regional fellow pilot	Increase collaboration and dissemination from REST-COAST project and results among local stakeholders, so that we can increase their commitment in this project. Improve our understanding of their roles and responsibilities on topics where we identify overlapping (water management, environment management, etc.) so that we can identify the more suitable pathway

		to upscale coastal restoration, define consistent funding mechanisms and intervention protocols on field.
Nahal Dalia	Regional fellow pilot	No information was provided by the Pilot Site.

6 References

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7 Annex I: Self-Assessment Survey Questions

This Annex is presented as a separate Excel file entitled “ANNEX I. RESTCOAST Governance Self-Assessment_Preparation Phase - TEMPLATE”.

8 Annex II: Self-Assessment Survey Results per Pilot Site

This Annex is presented as a separate Excel file entitled “ANNEX II. REST-COAST WP5 Task 5.1 Governance Self Assessment_Results per Pilot Site”.

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